

Fig. 1

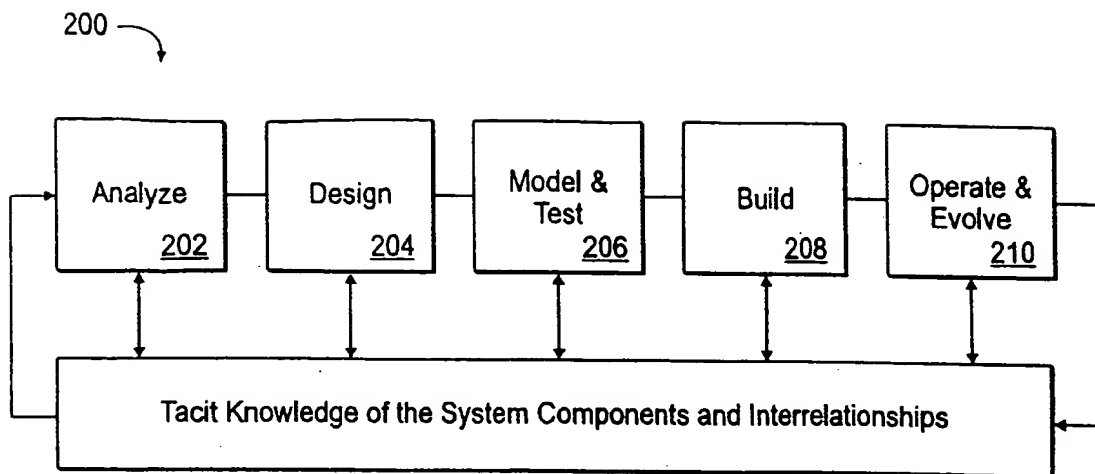


Fig. 2

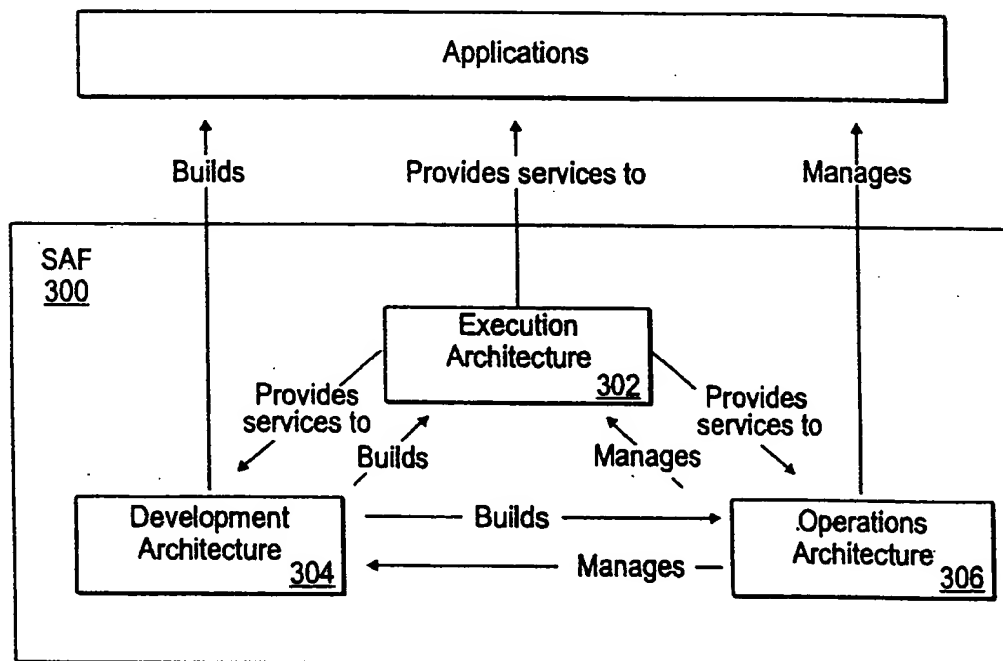


Fig. 3



400

Application Style 404

Technology Generations 402

	Host	Client/Server	Network Centric
Knowledge Management			
Decision Support			
Collaboration			
Integration			
Batch			
OLTP			

Delivery Vehicle

Fig. 4

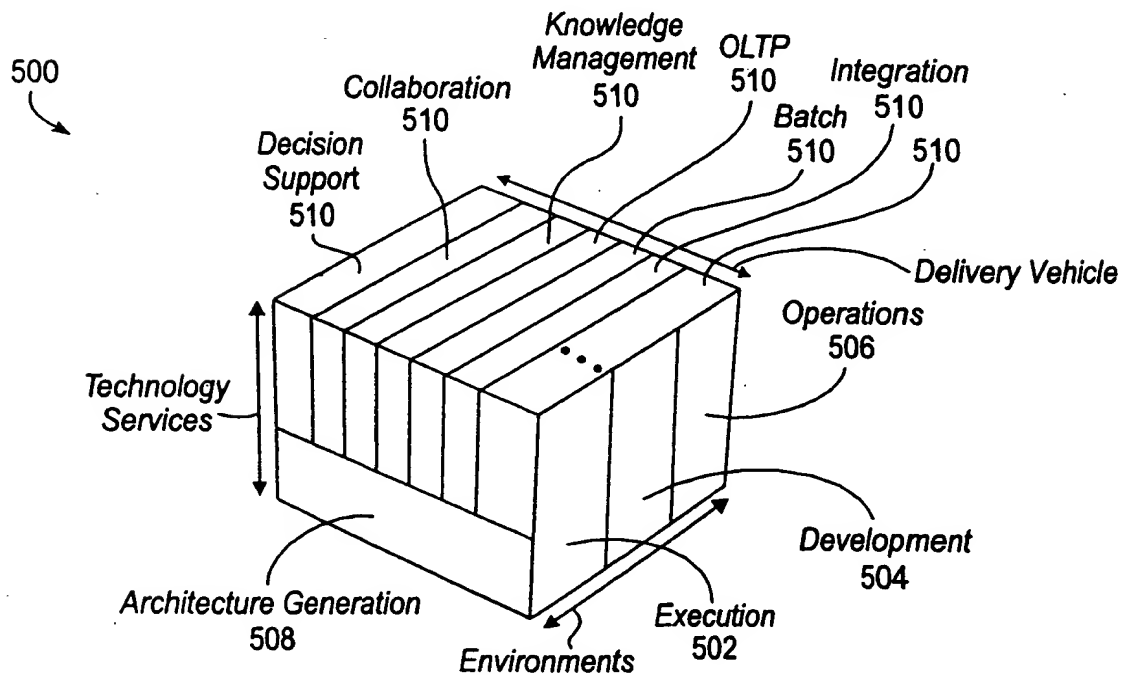


Fig. 5

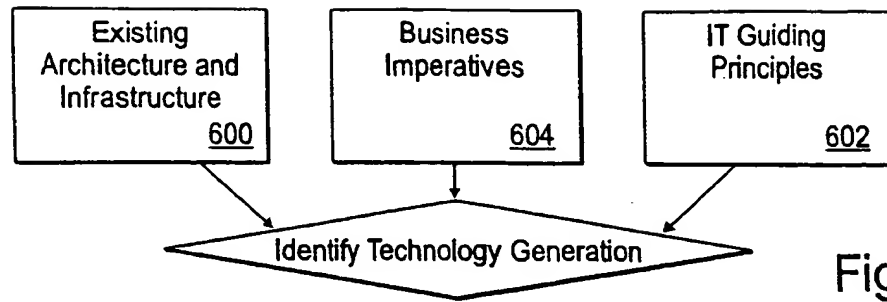


Fig. 6

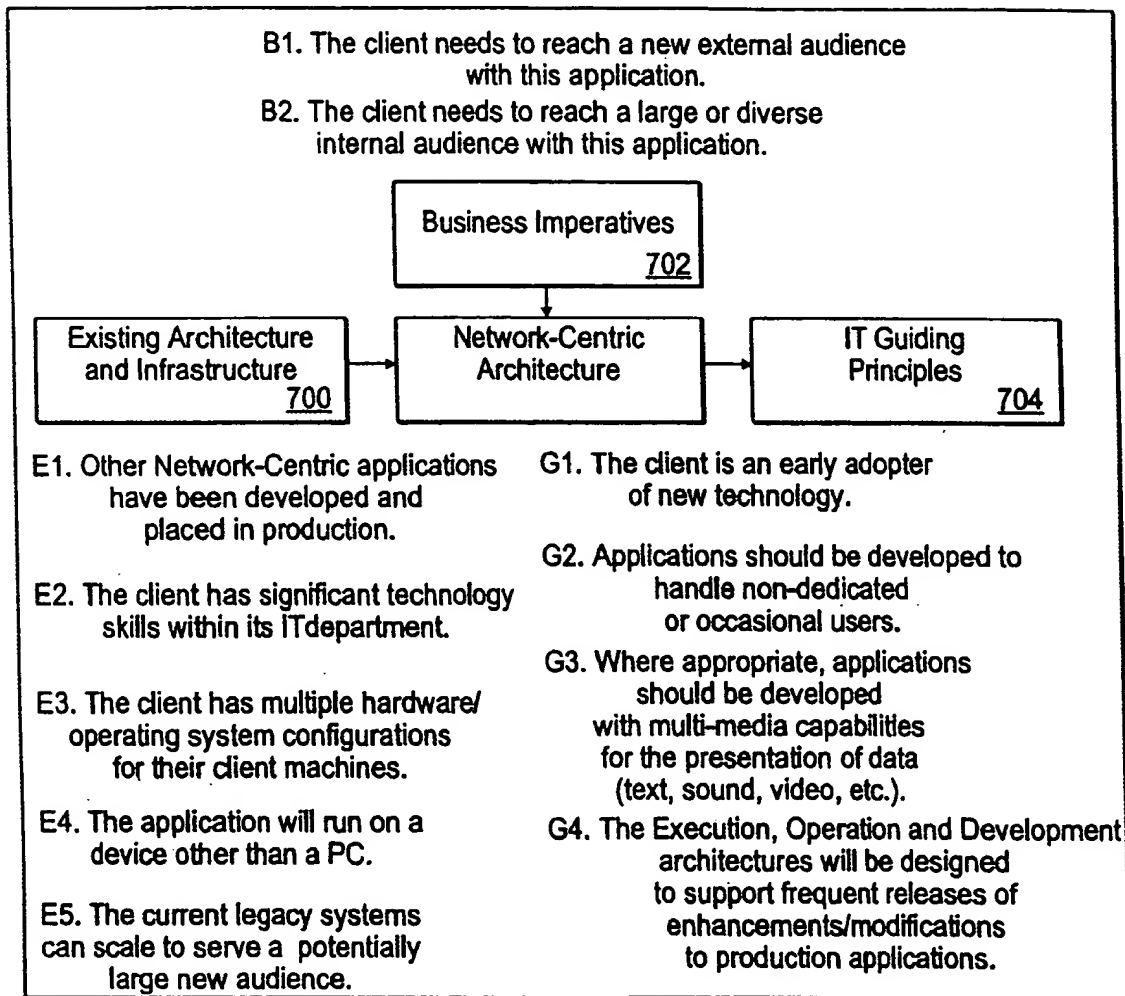


Fig. 7

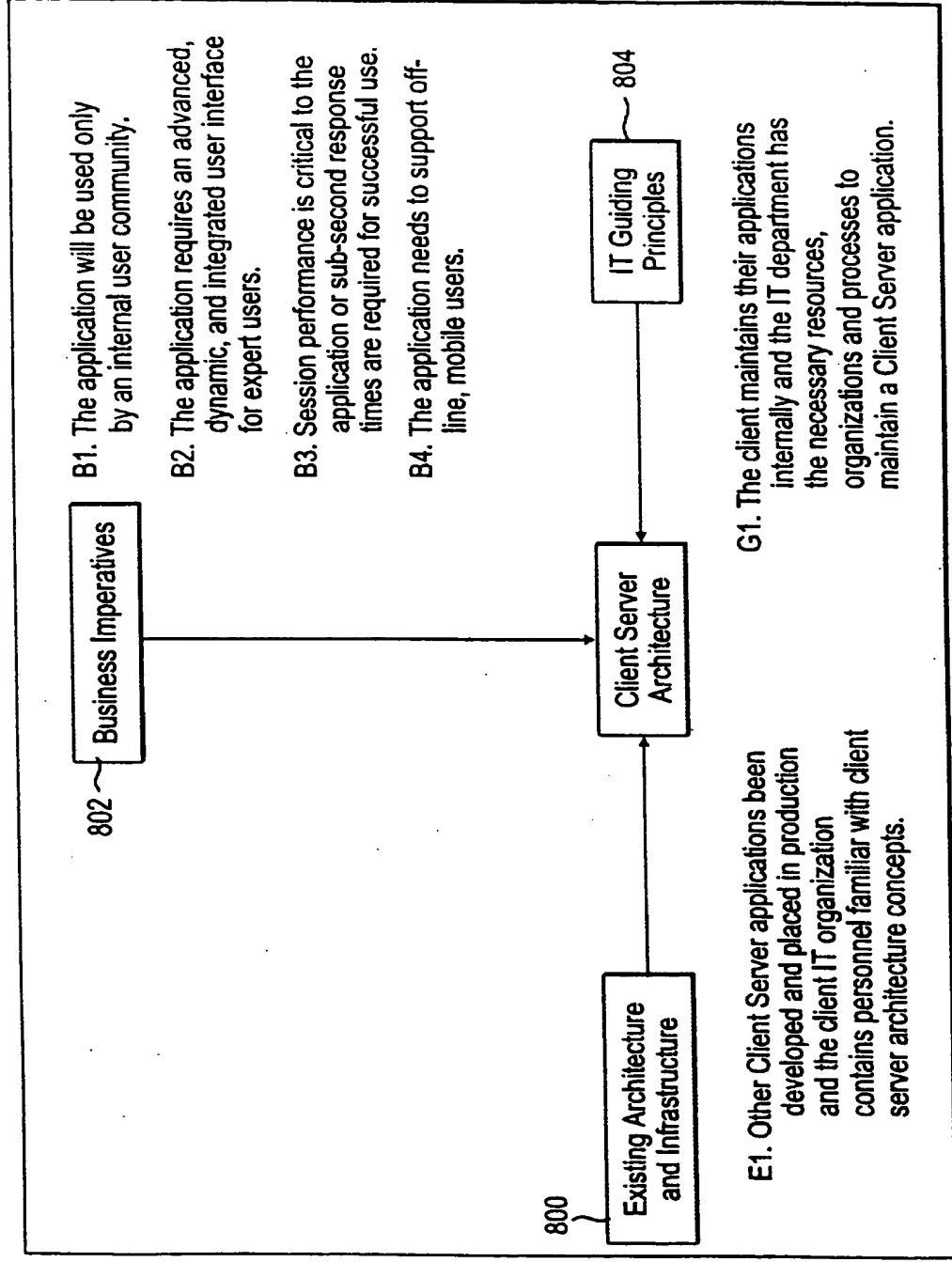
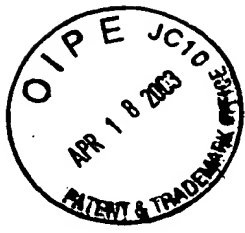


Fig. 8

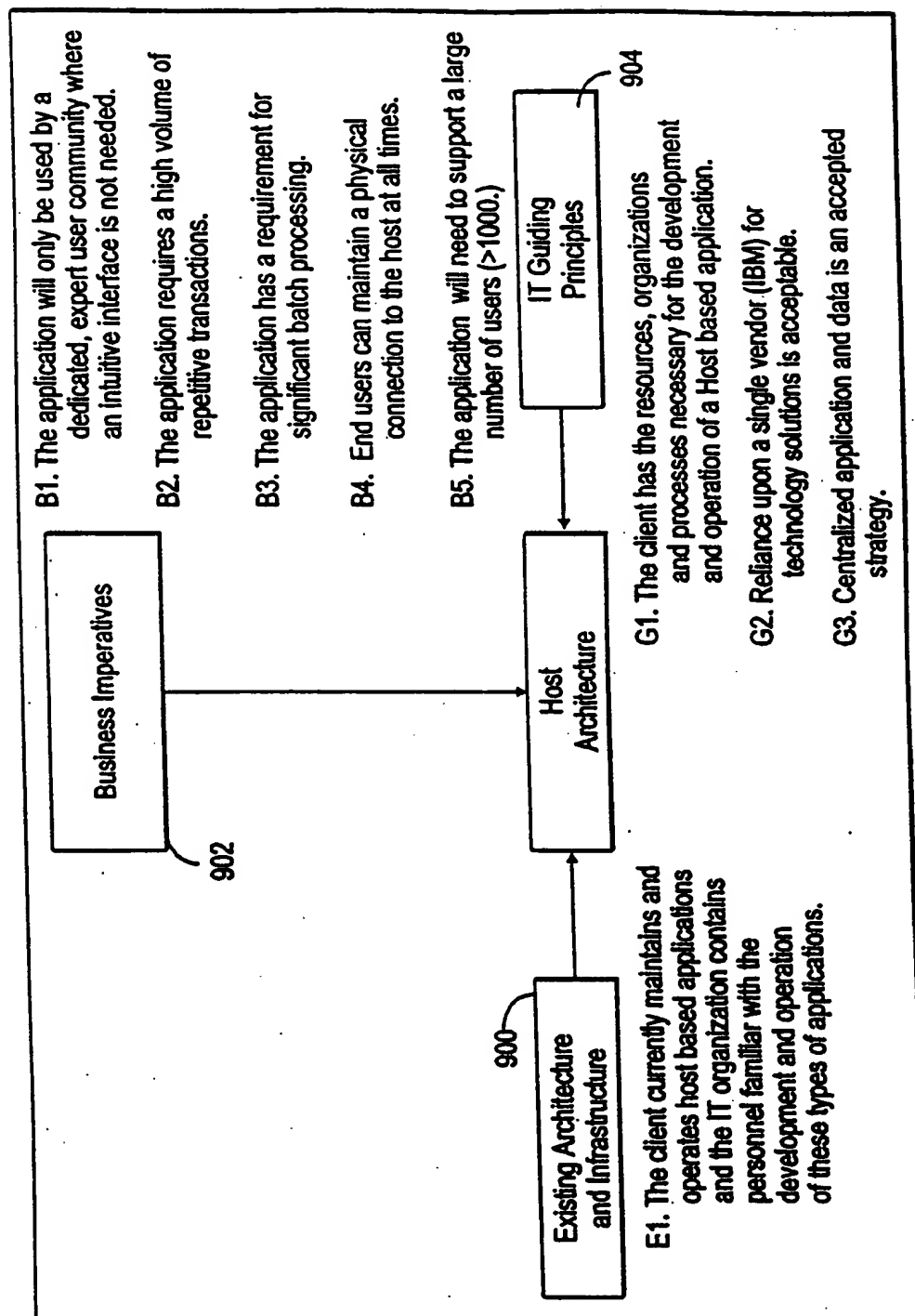


Fig. 9

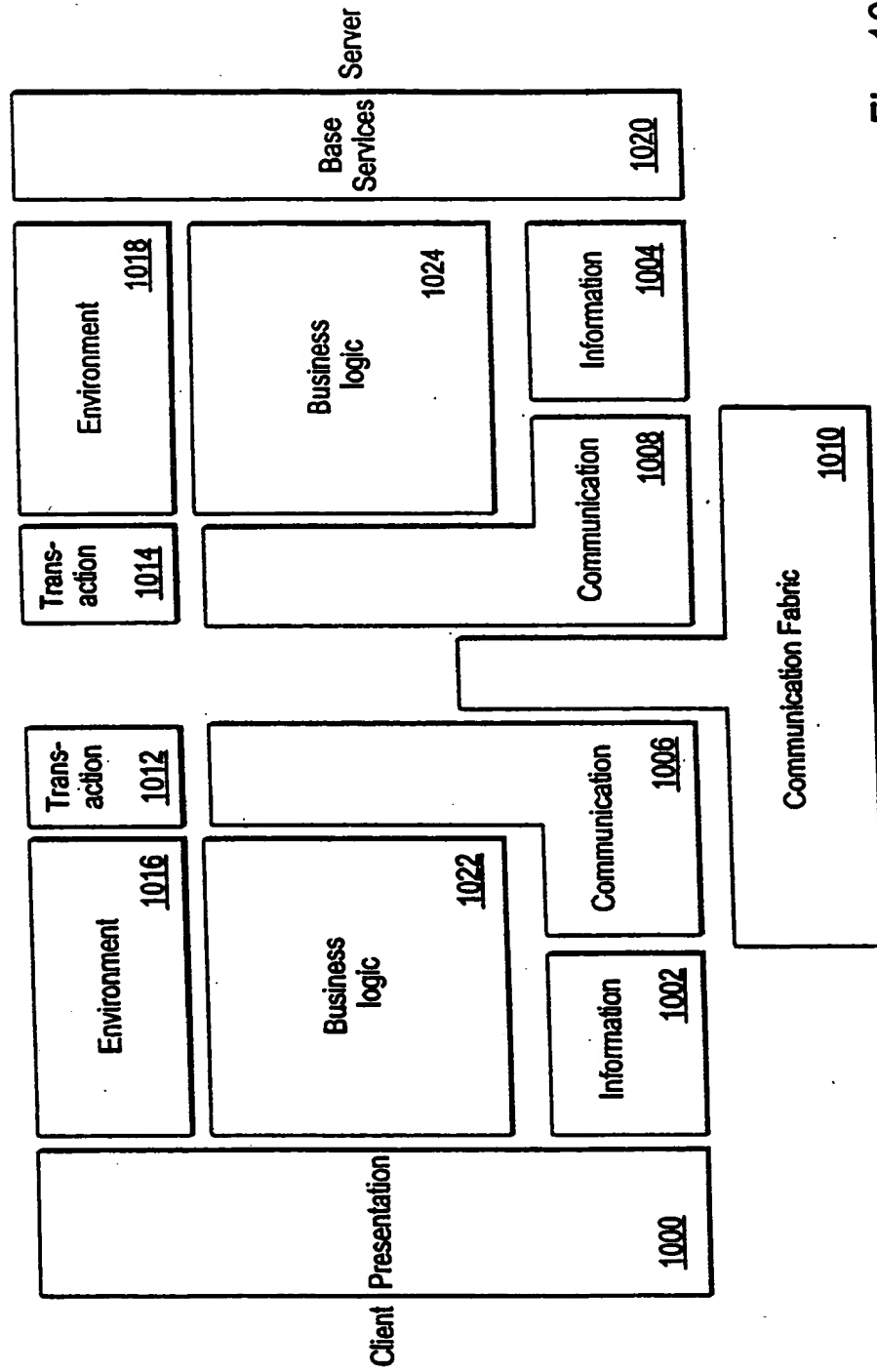


Fig. 10

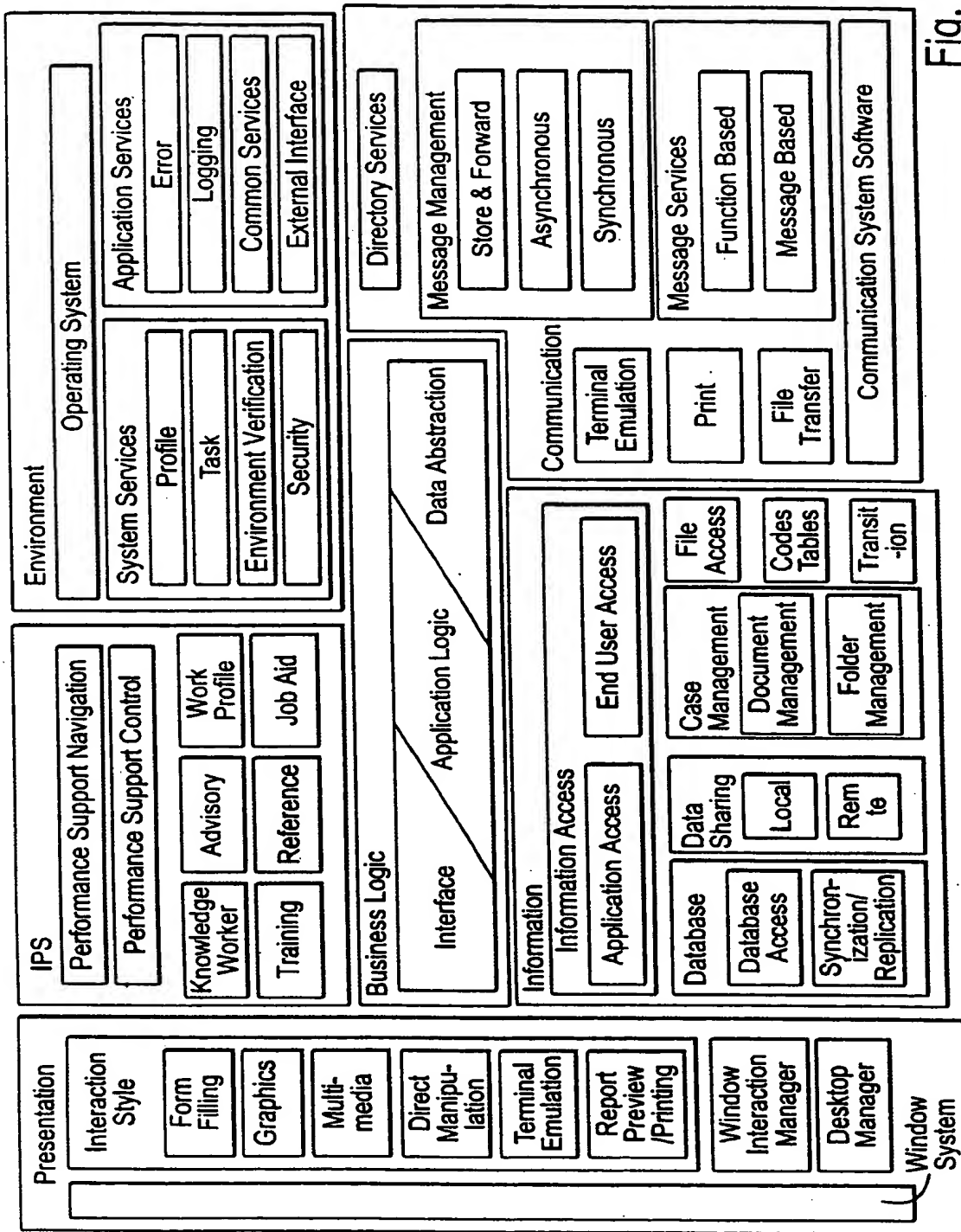
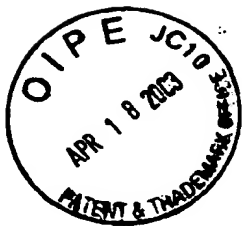


Fig. 11



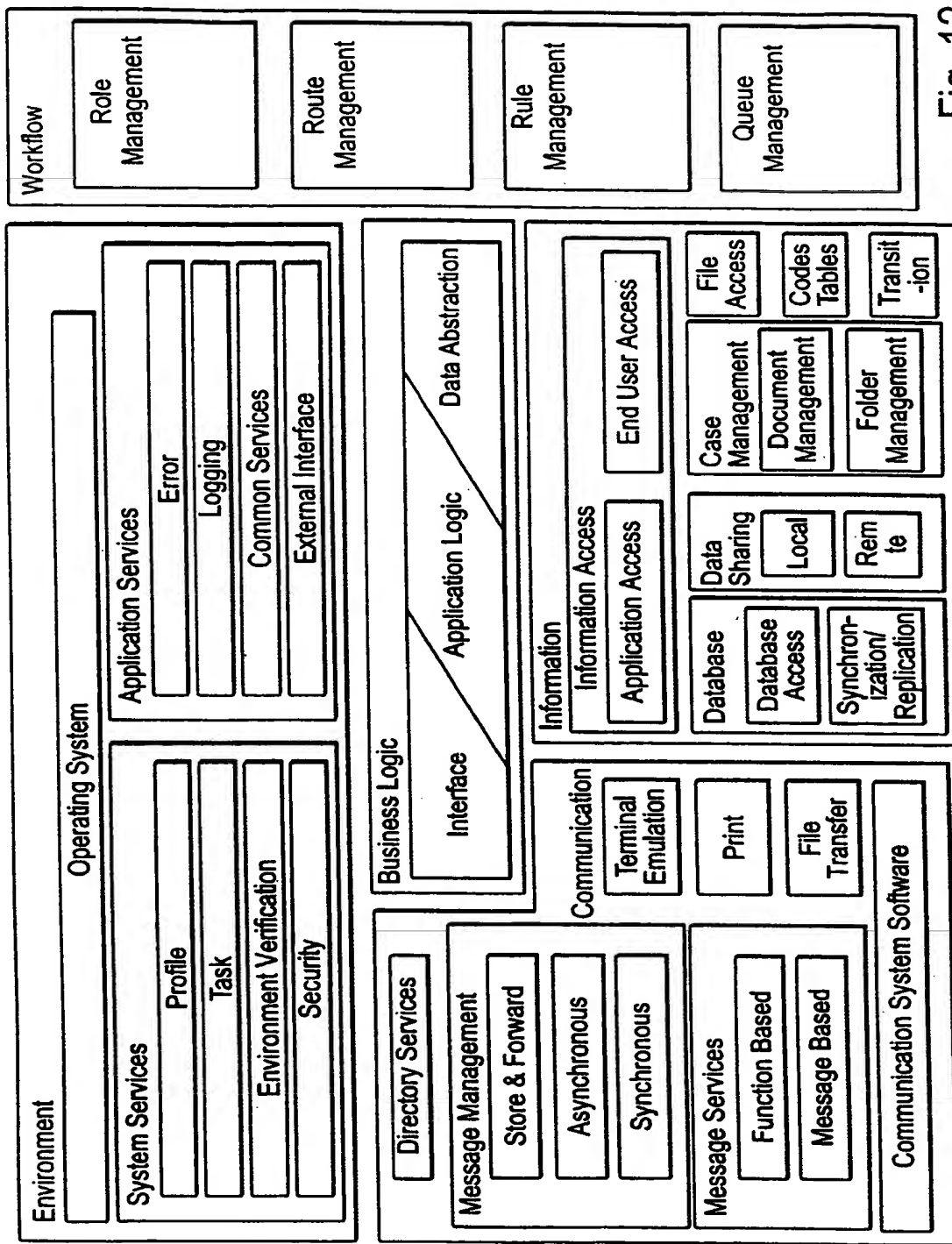
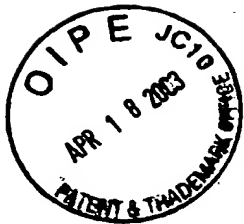


Fig. 12

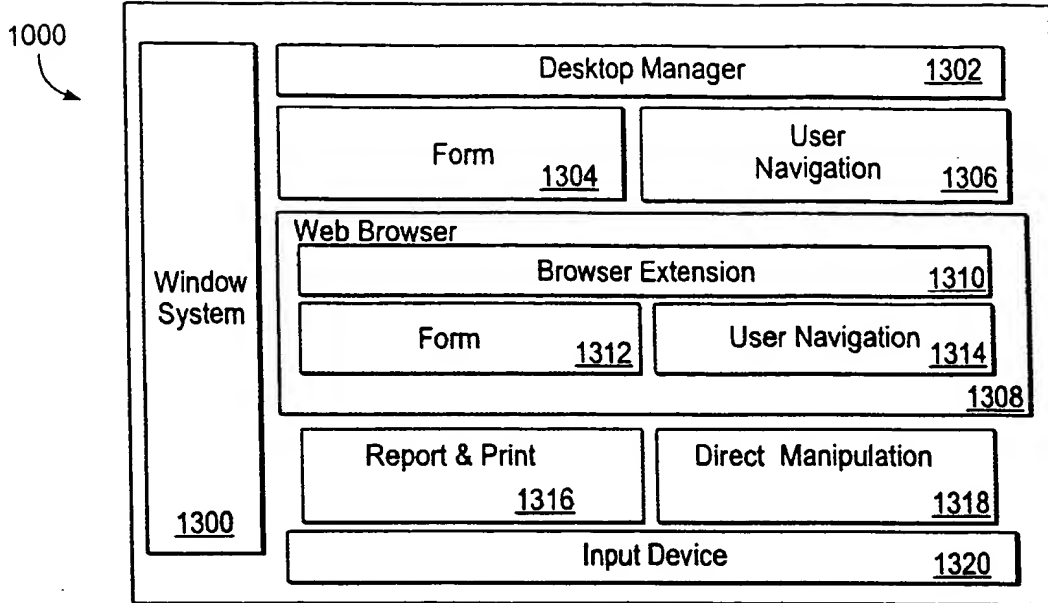
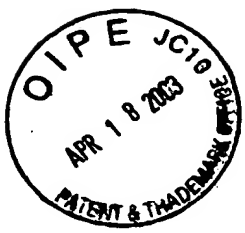


Fig. 13

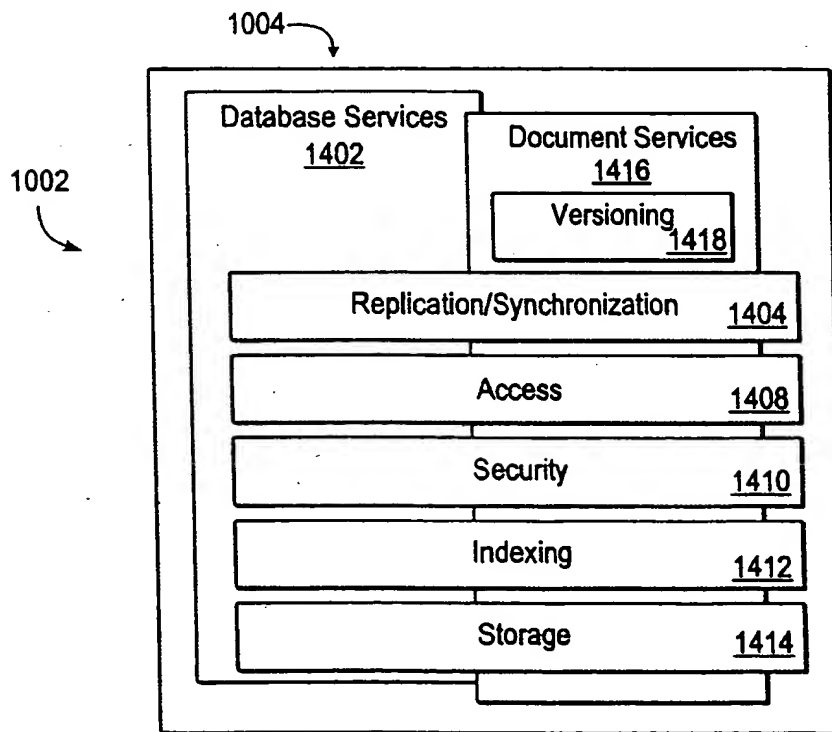


Fig. 14

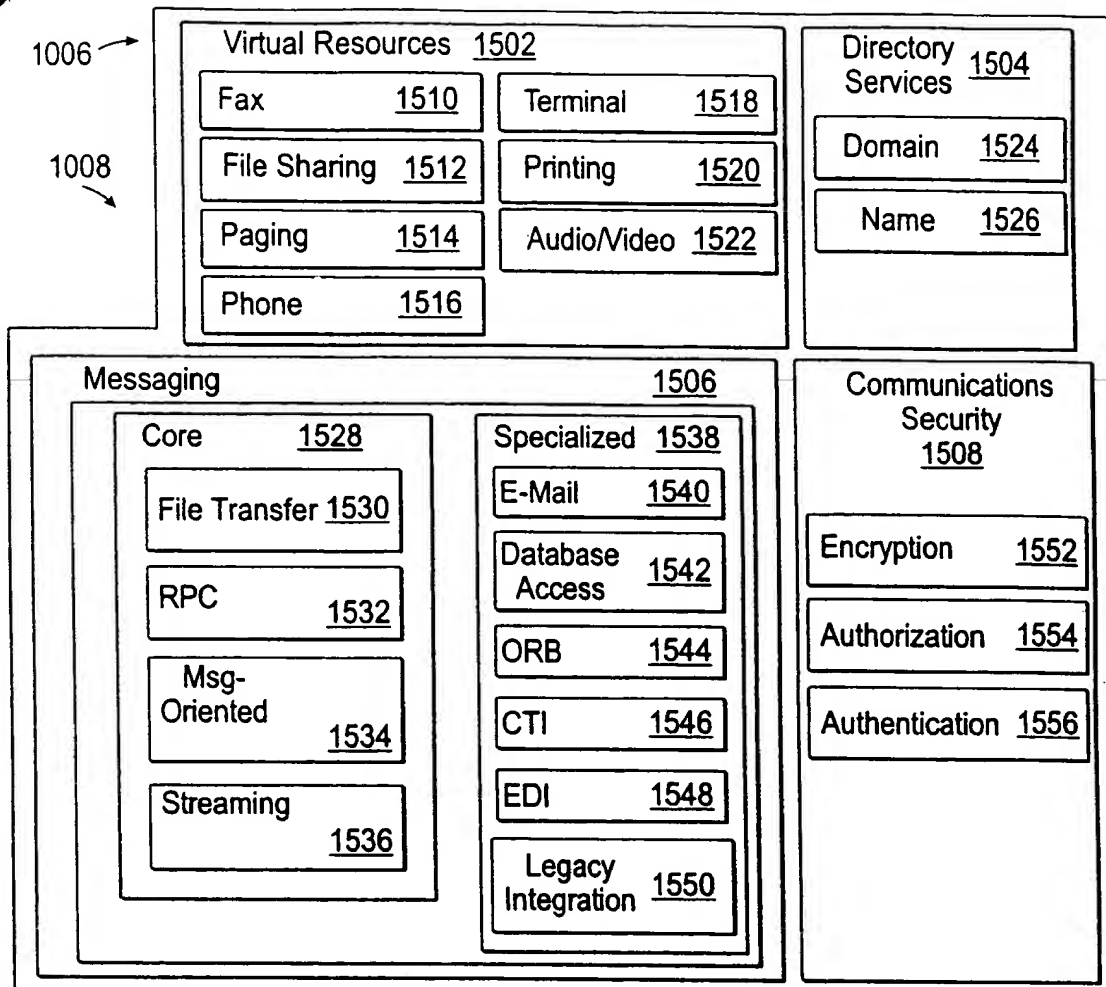


Fig. 15

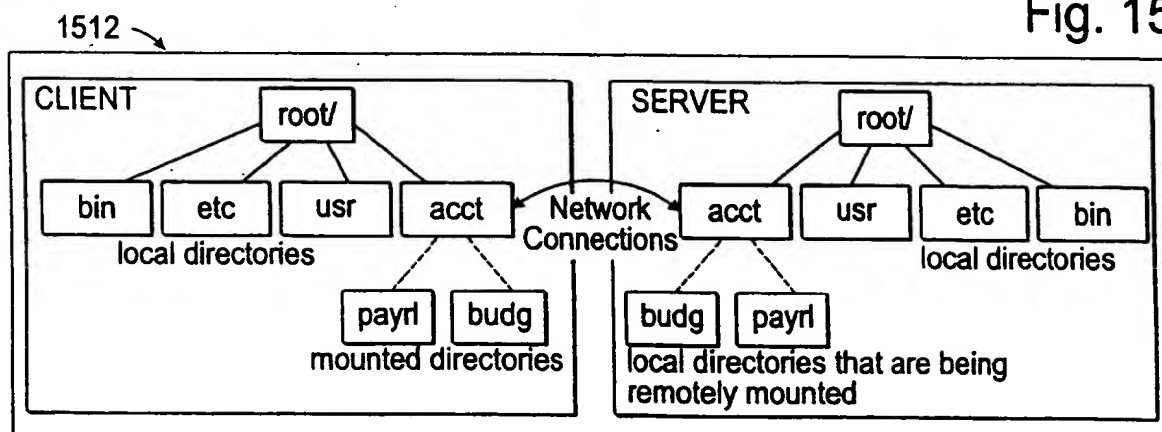


Fig. 16

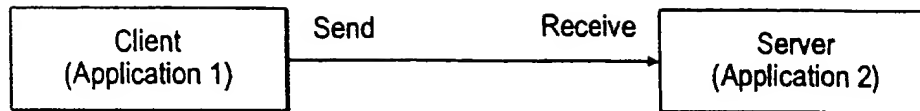
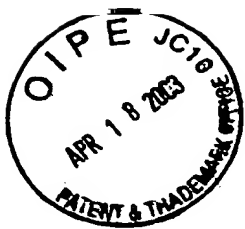


Fig. 17

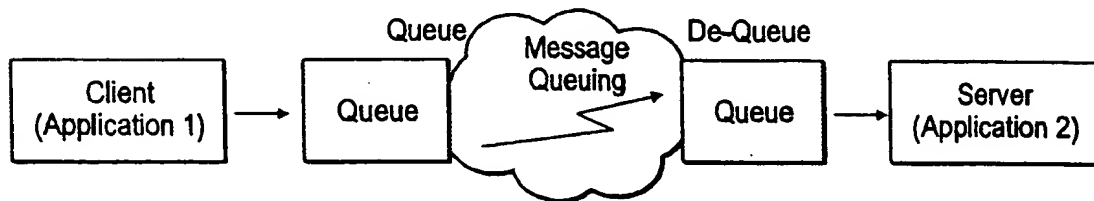


Fig. 18



Fig. 19

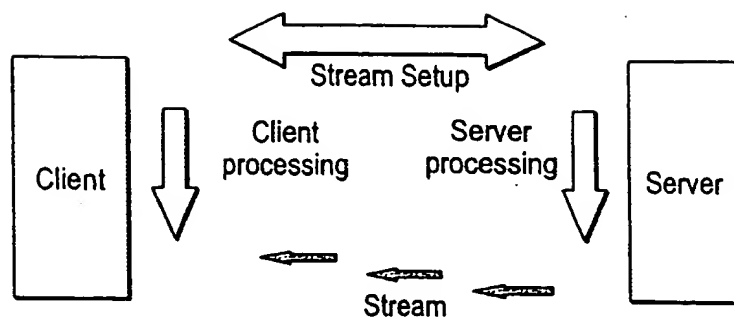


Fig. 20

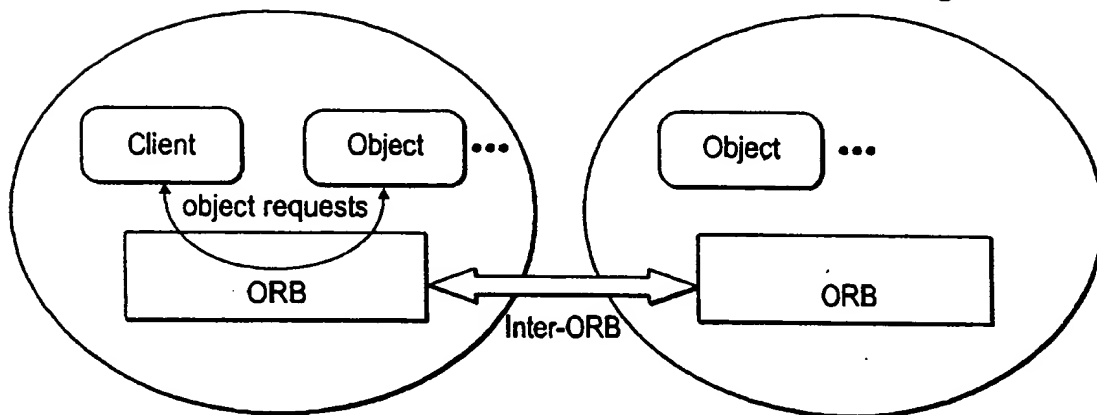


Fig. 21

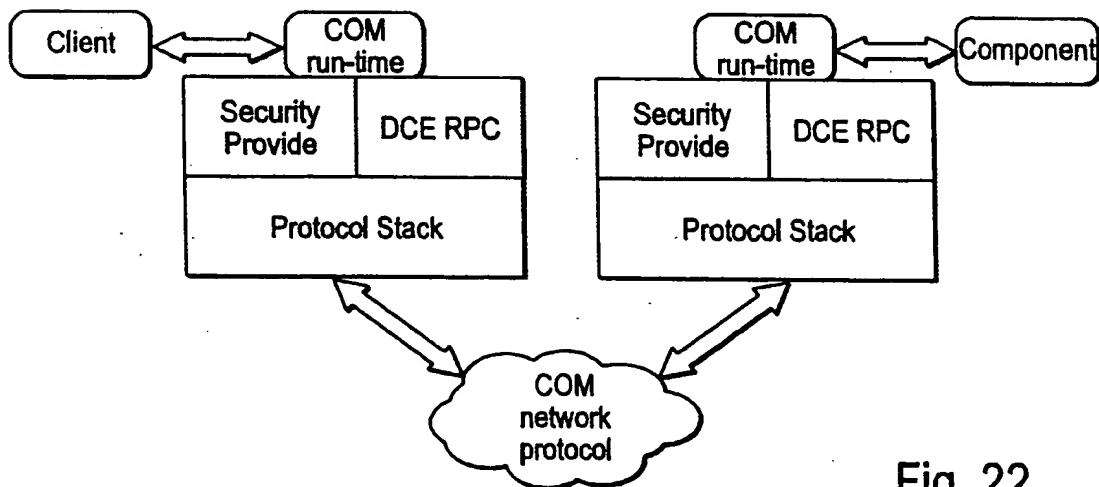


Fig. 22

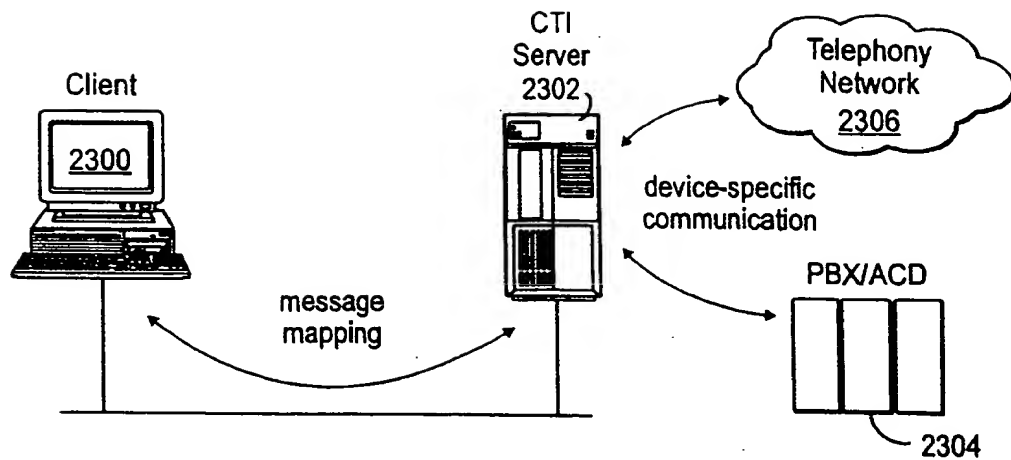
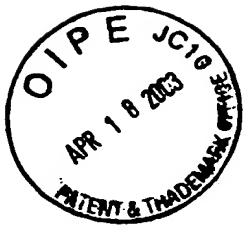


Fig. 23

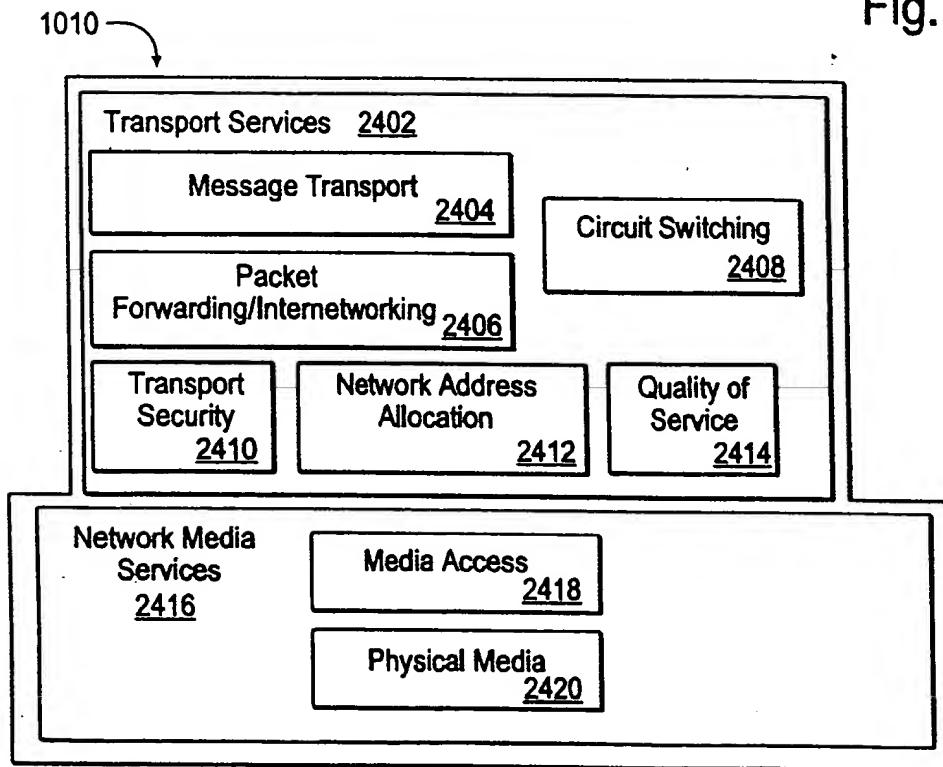


Fig. 24

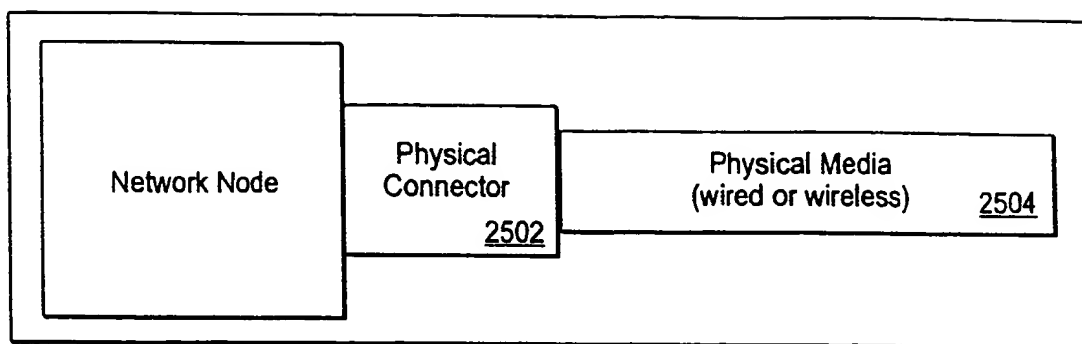
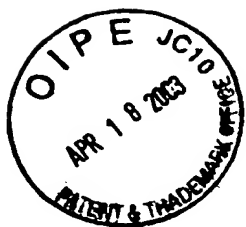


Fig. 25

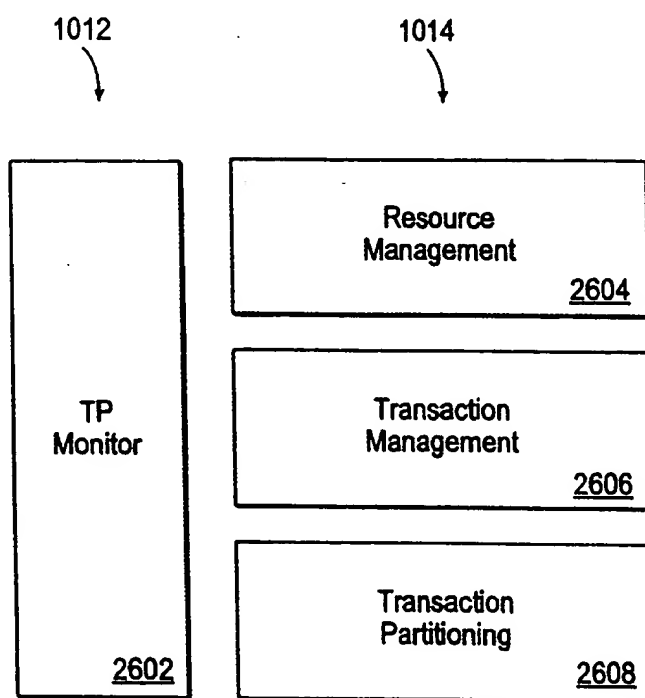


Fig. 26

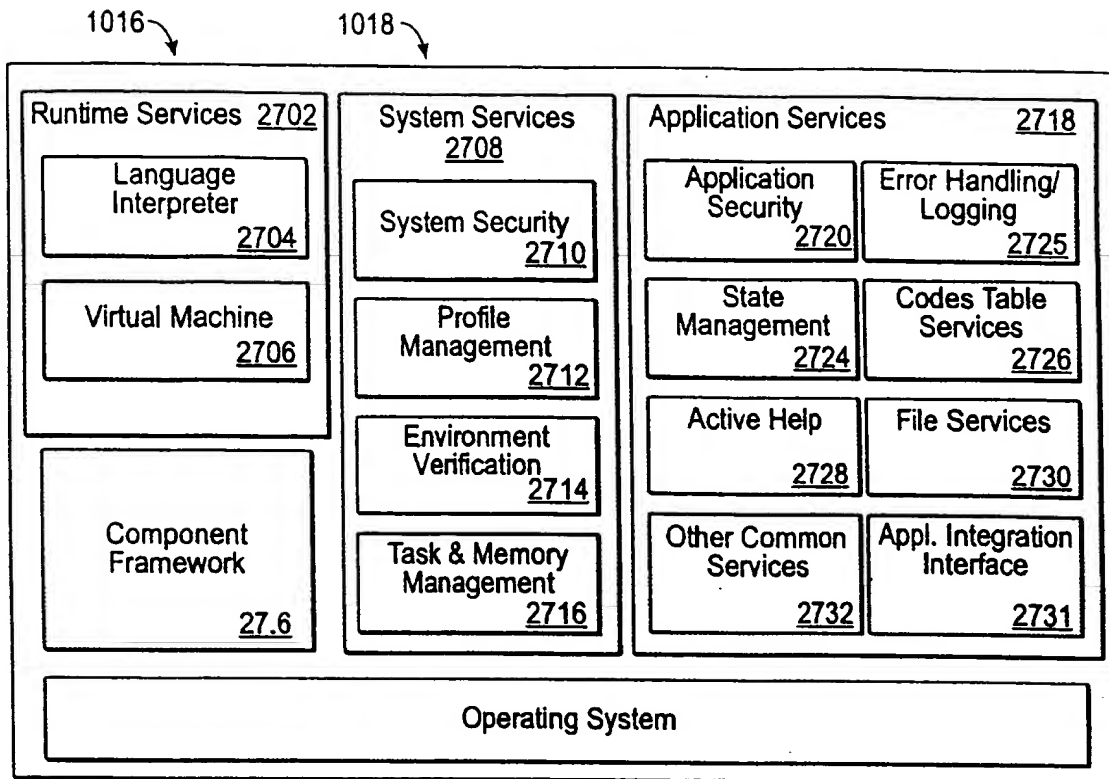
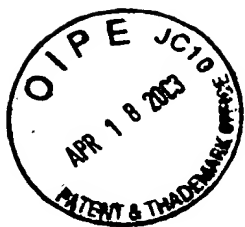


Fig. 27

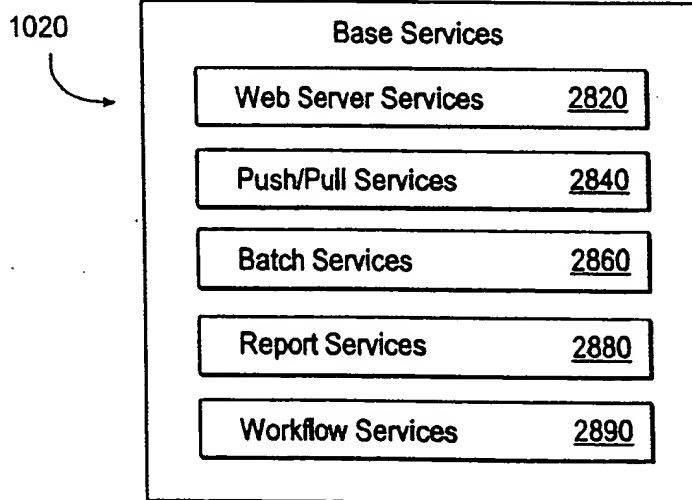


Fig. 28



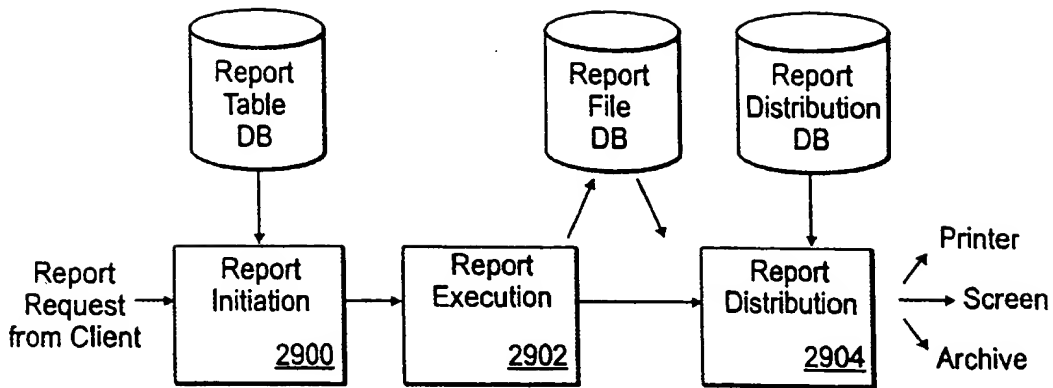
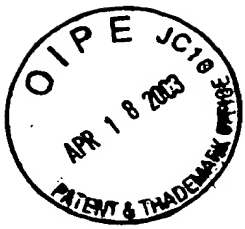


Fig. 29

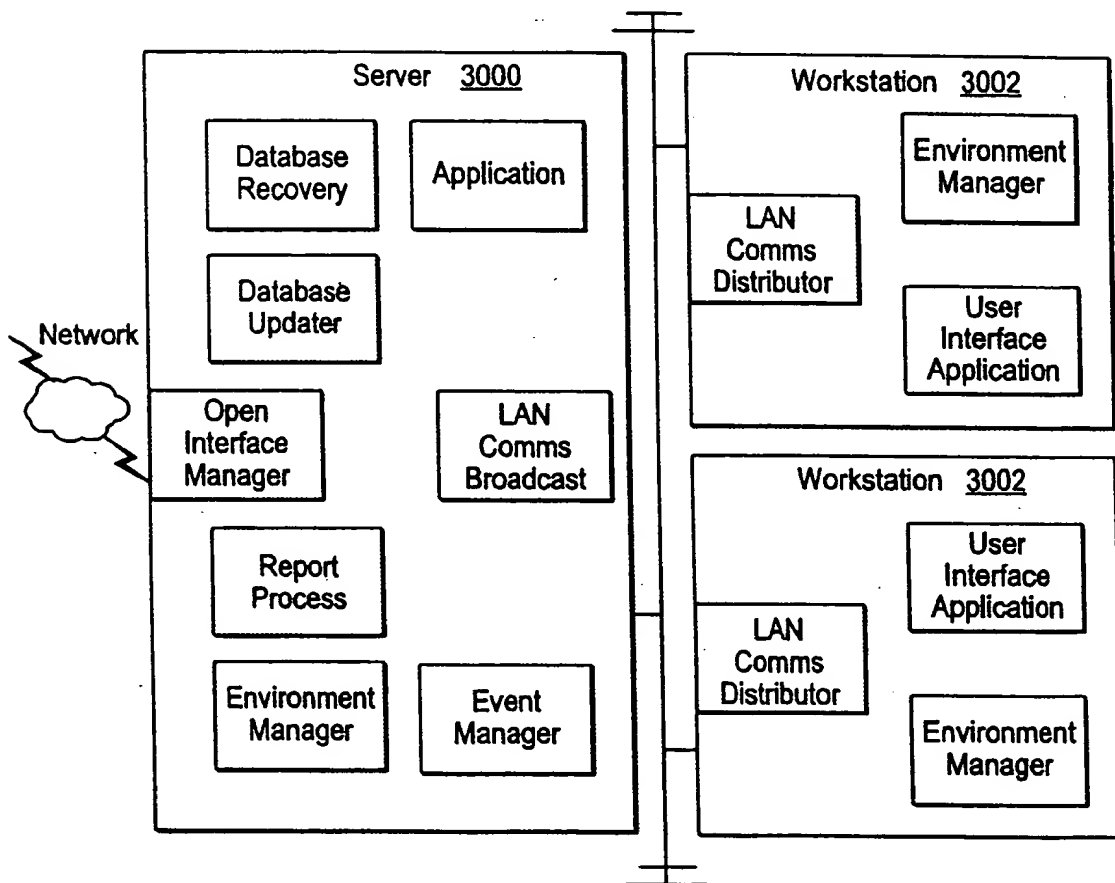


Fig. 30

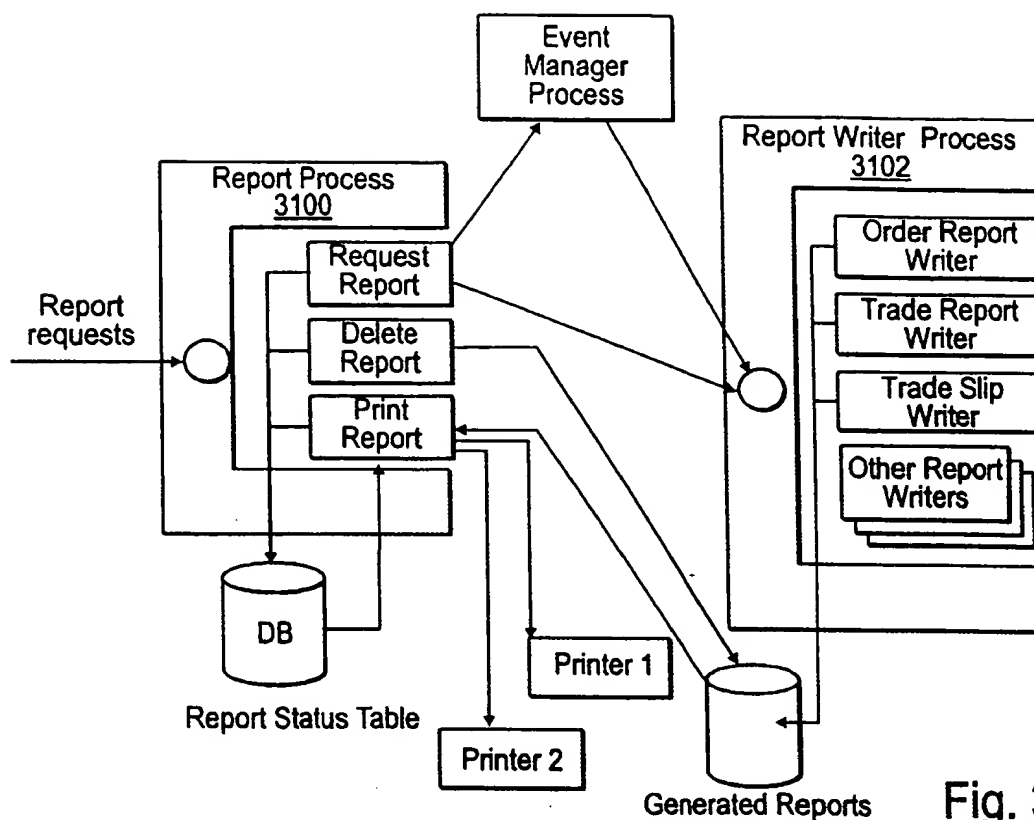
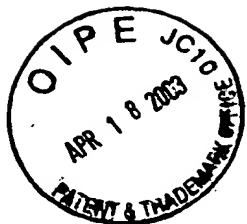


Fig. 31

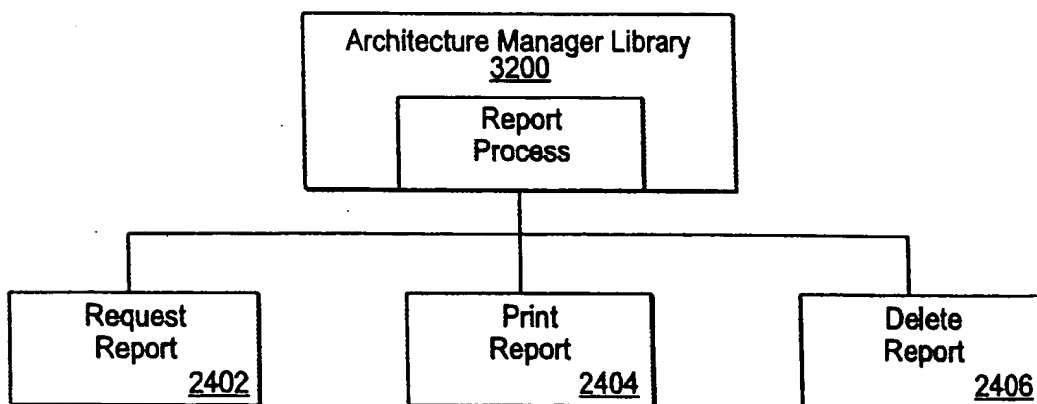
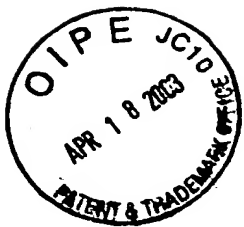


Fig. 32



1022, 1024

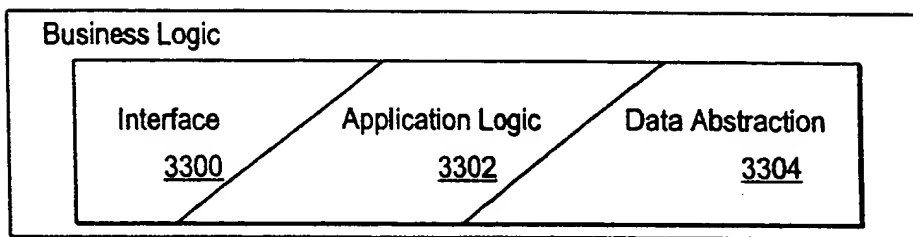
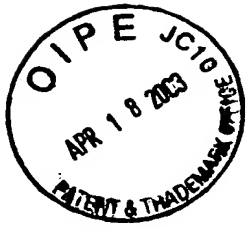


Fig. 33



Overall Themes

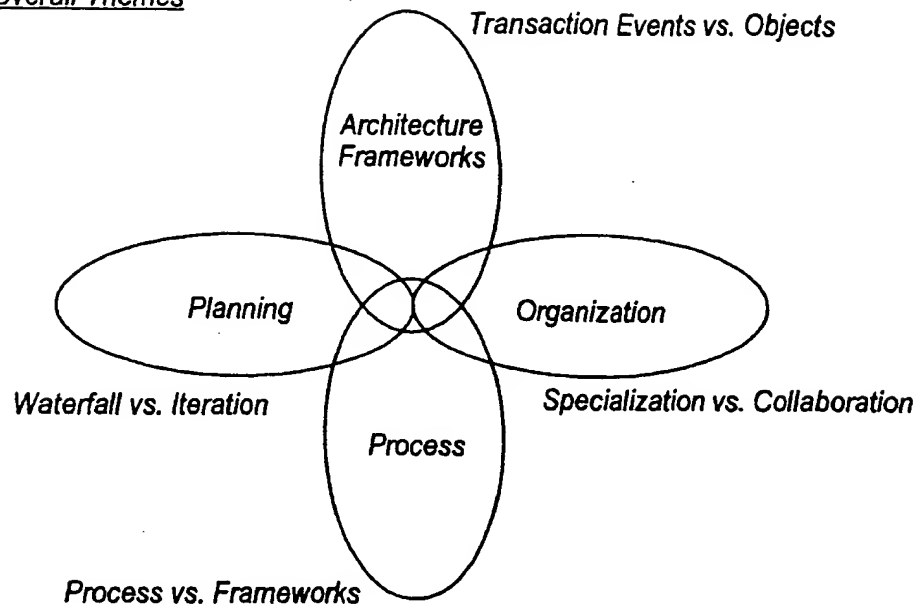


Fig. 34

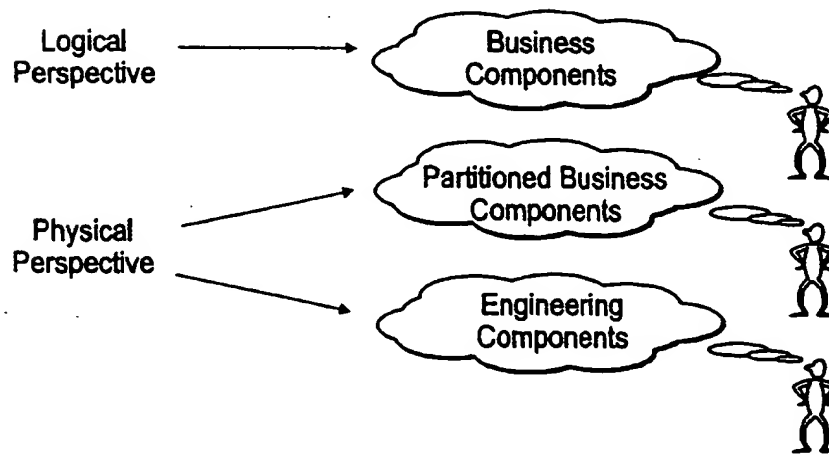


Fig. 35

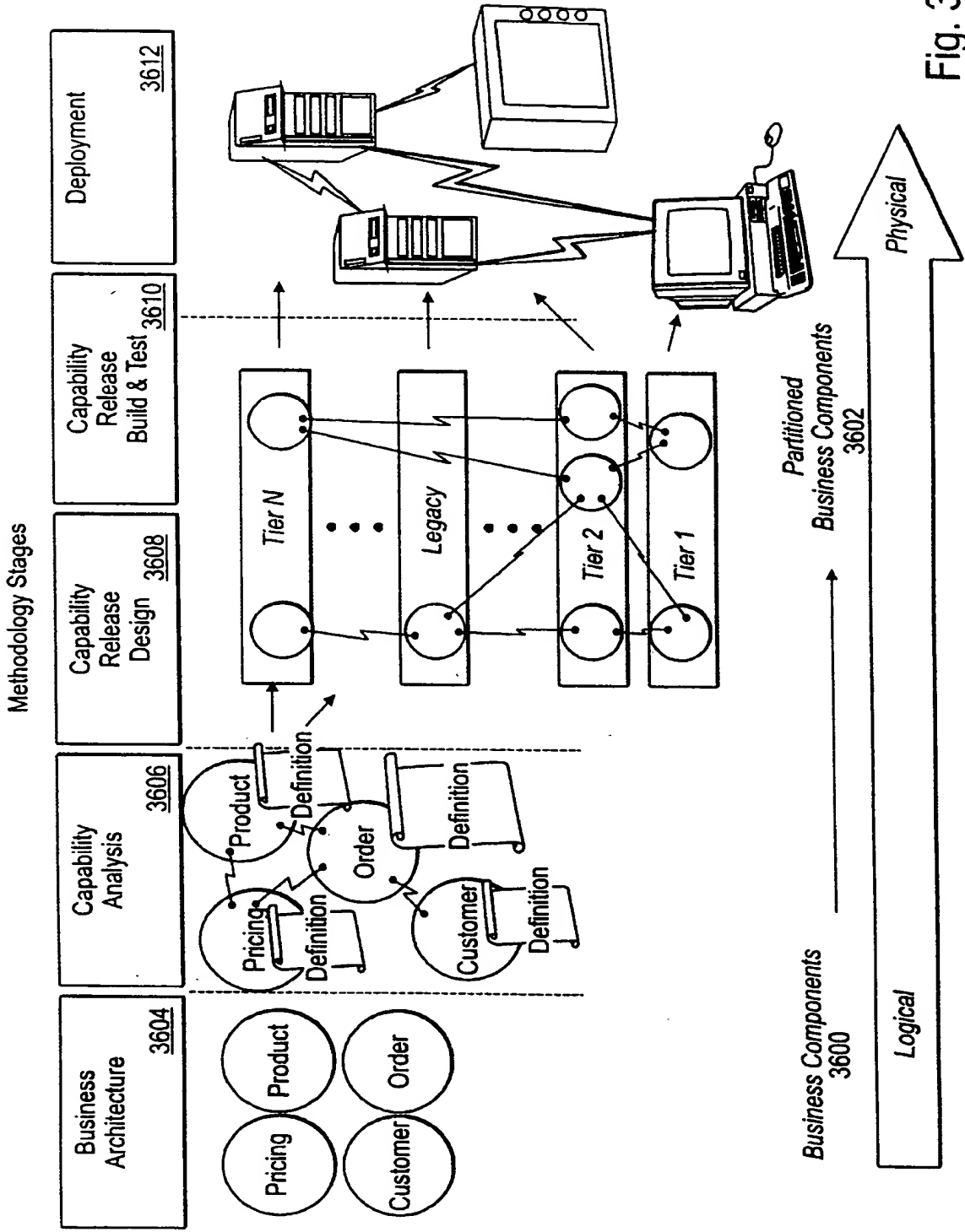


Fig. 36

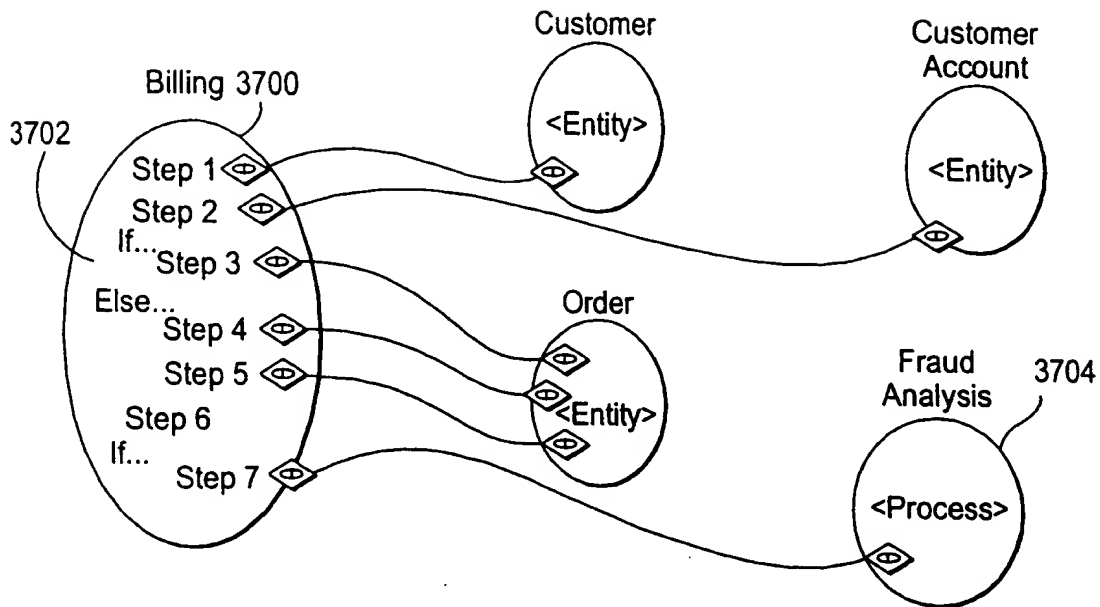


Fig. 37

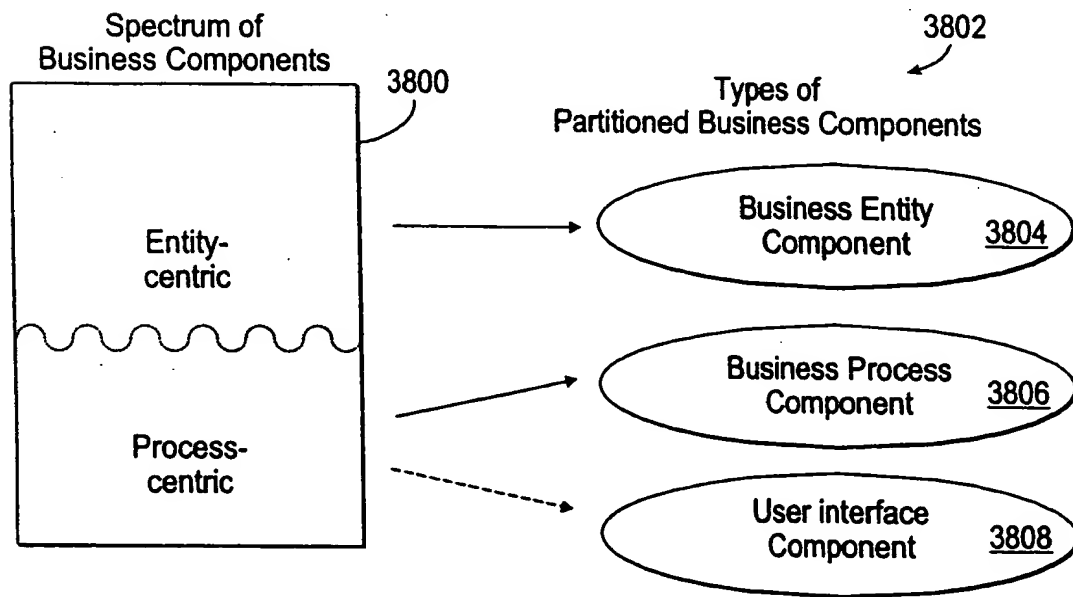


Fig. 38

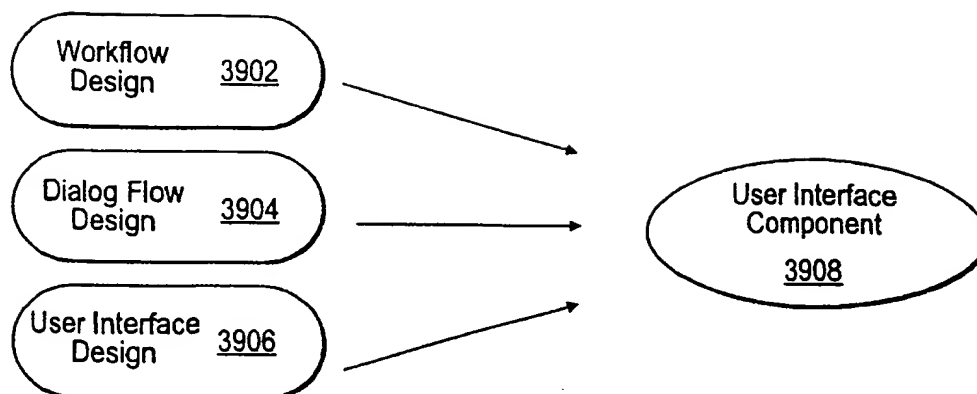


Fig. 39

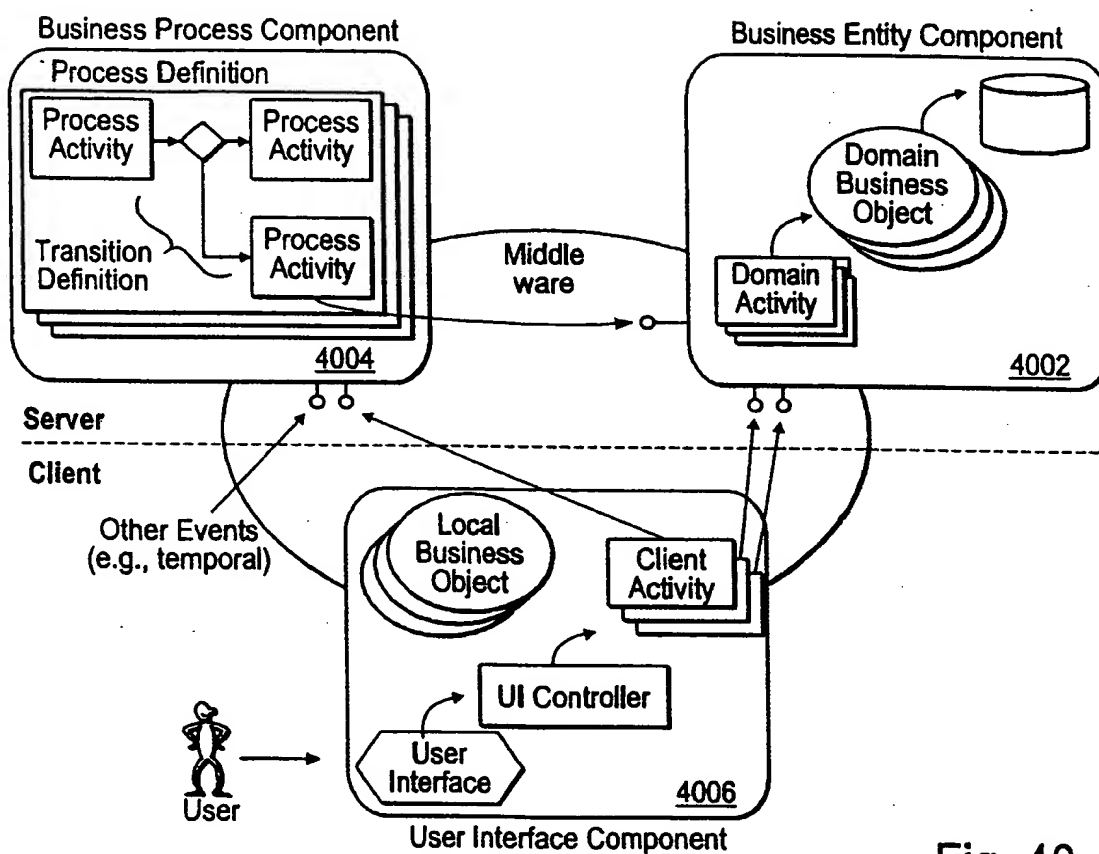


Fig. 40

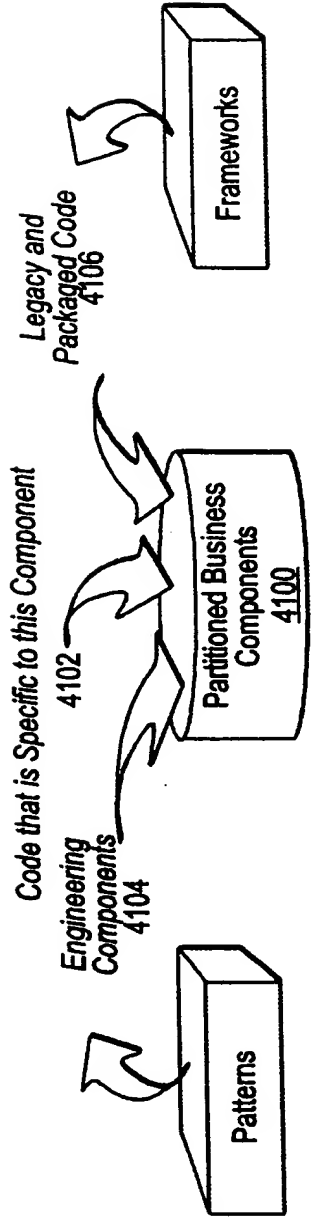
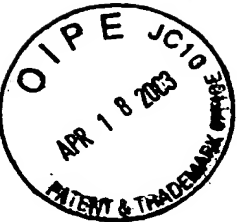


Fig. 41



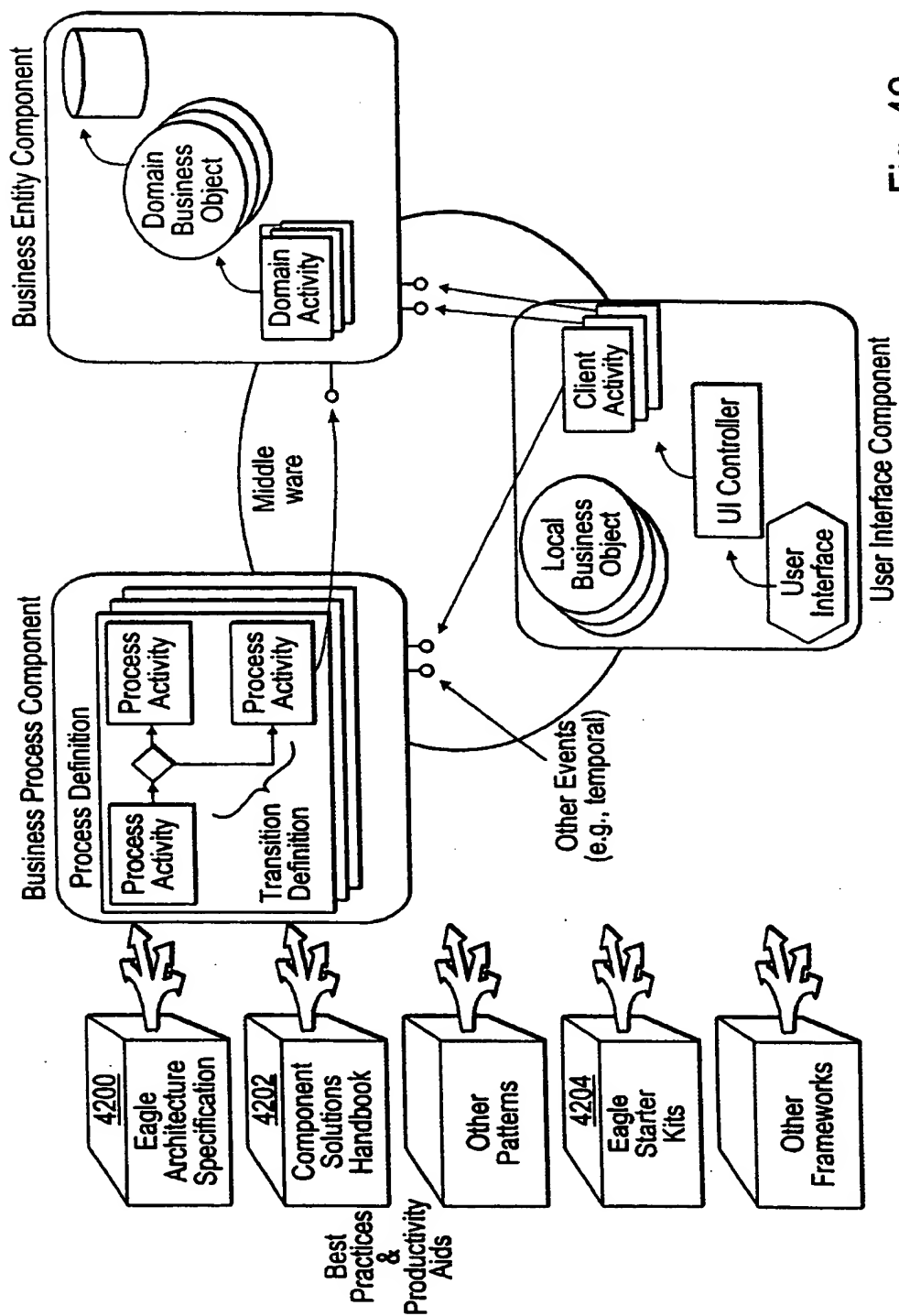


Fig. 42

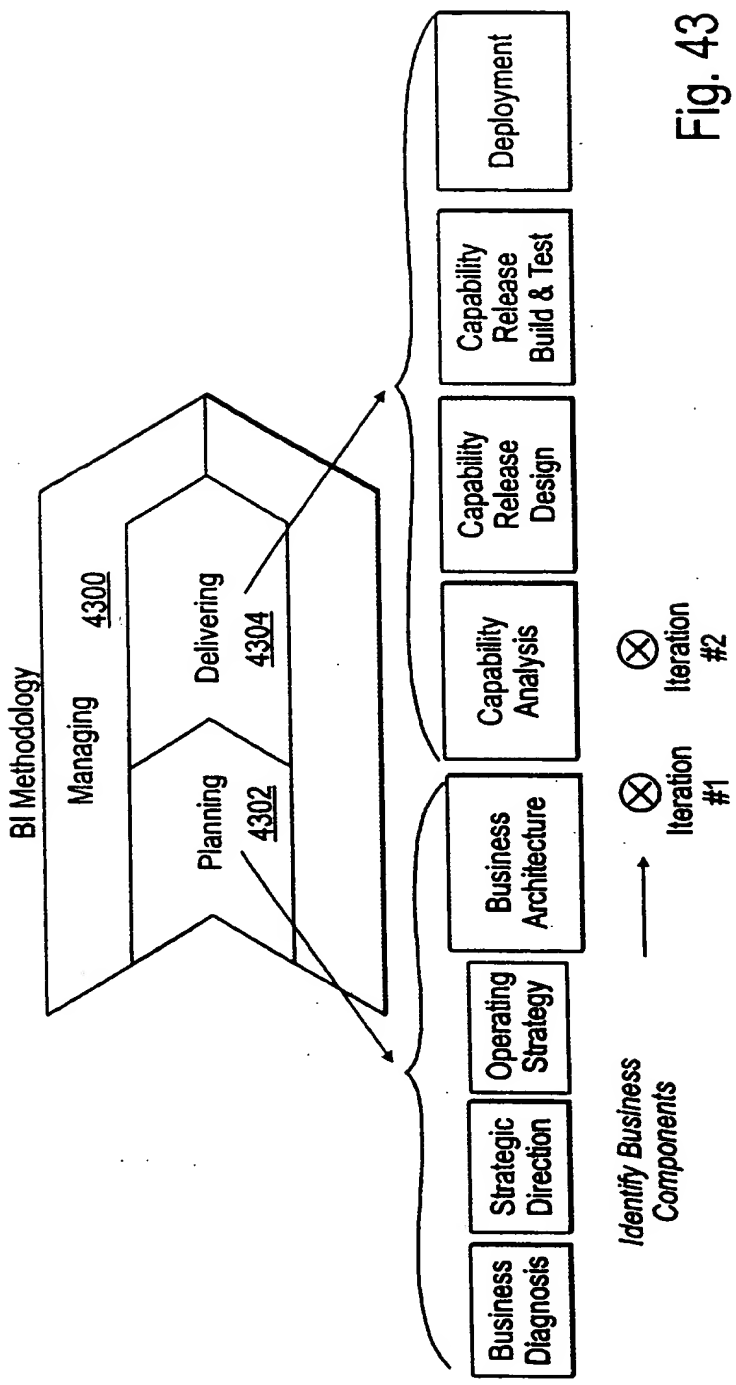


Fig. 43

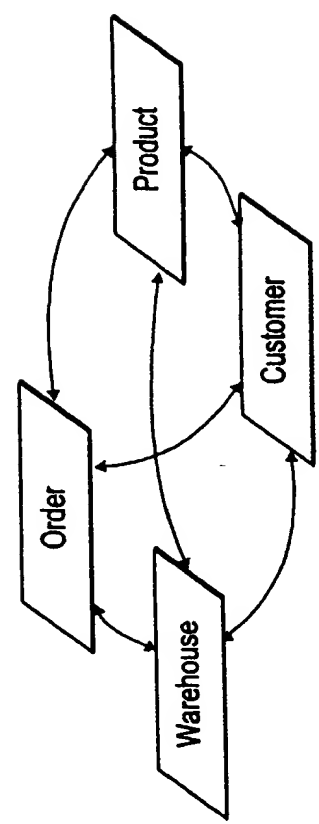


Fig. 44



Traditional Organization

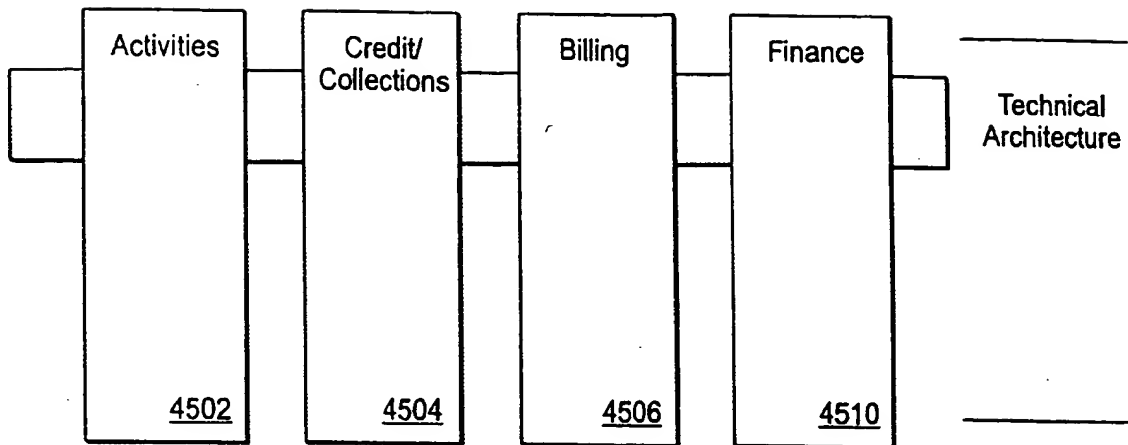


Fig. 45

Architecture-Based Organization

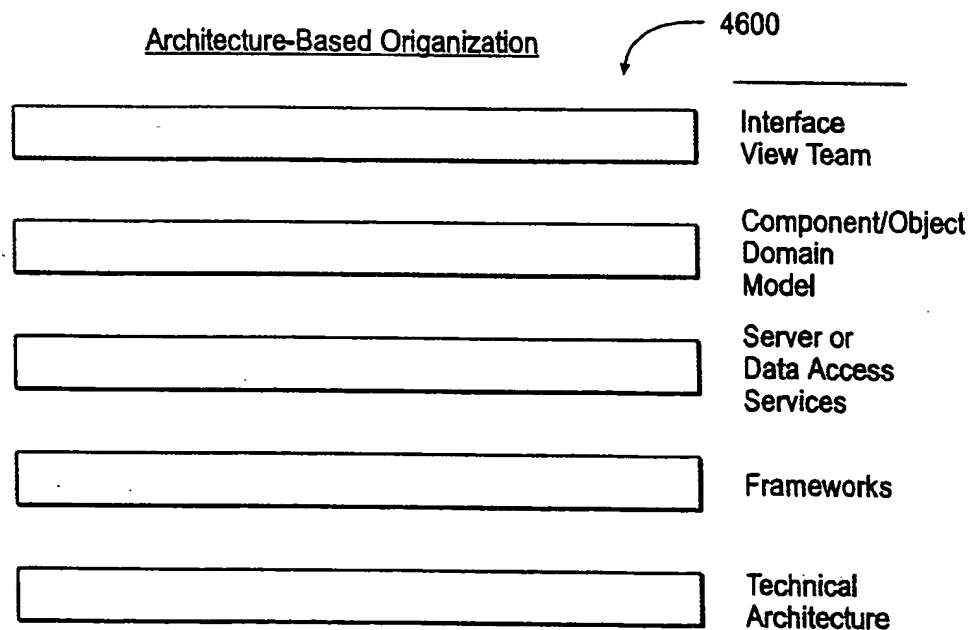
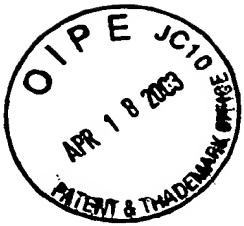


Fig. 46



Workcell Approach

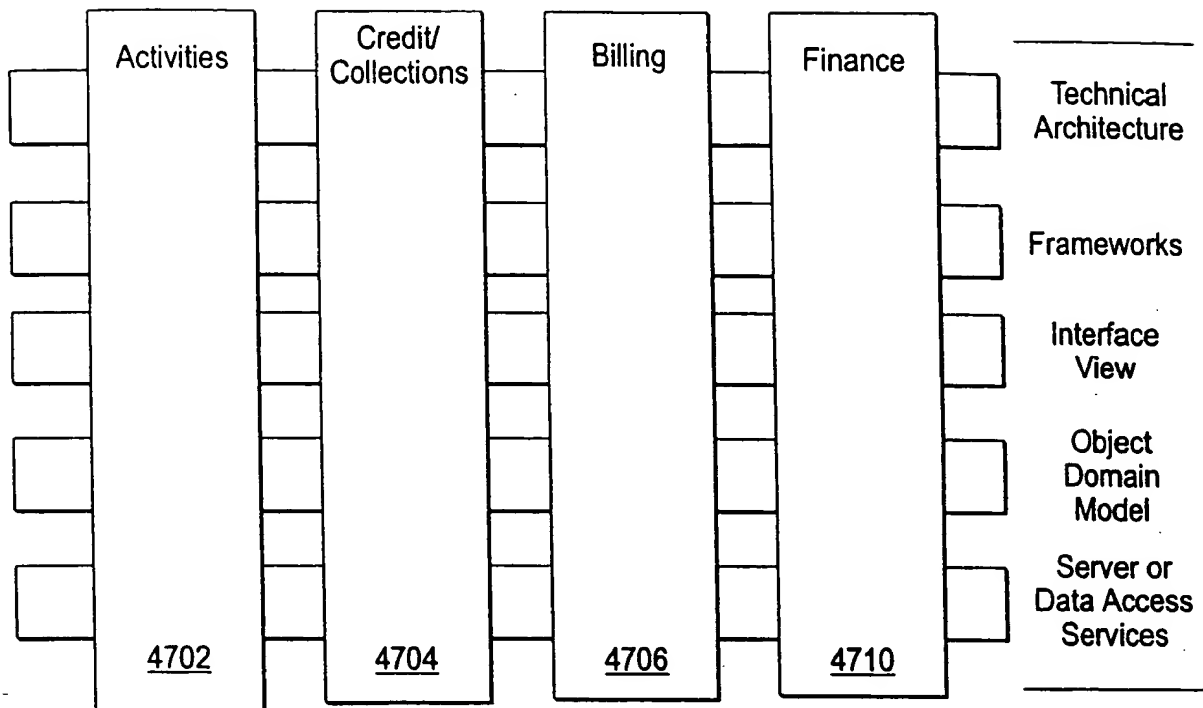


Fig. 47

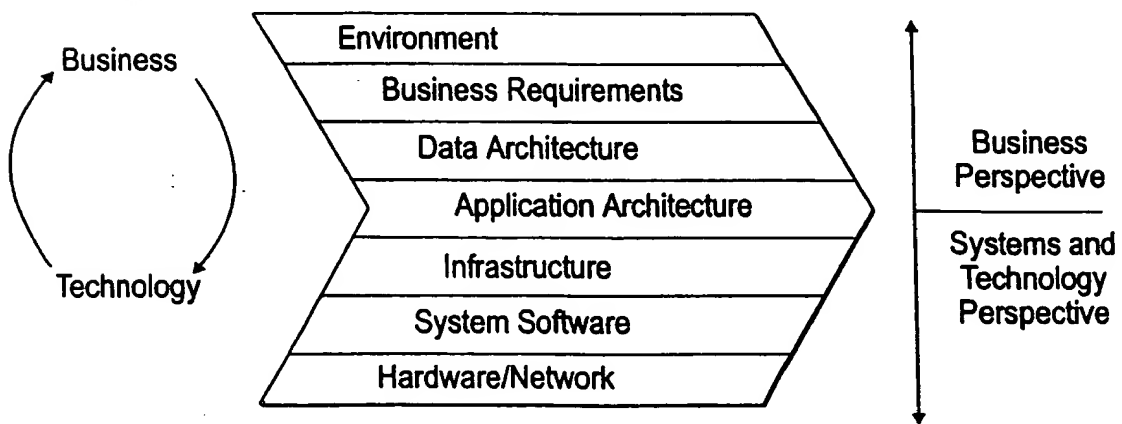


Fig. 48

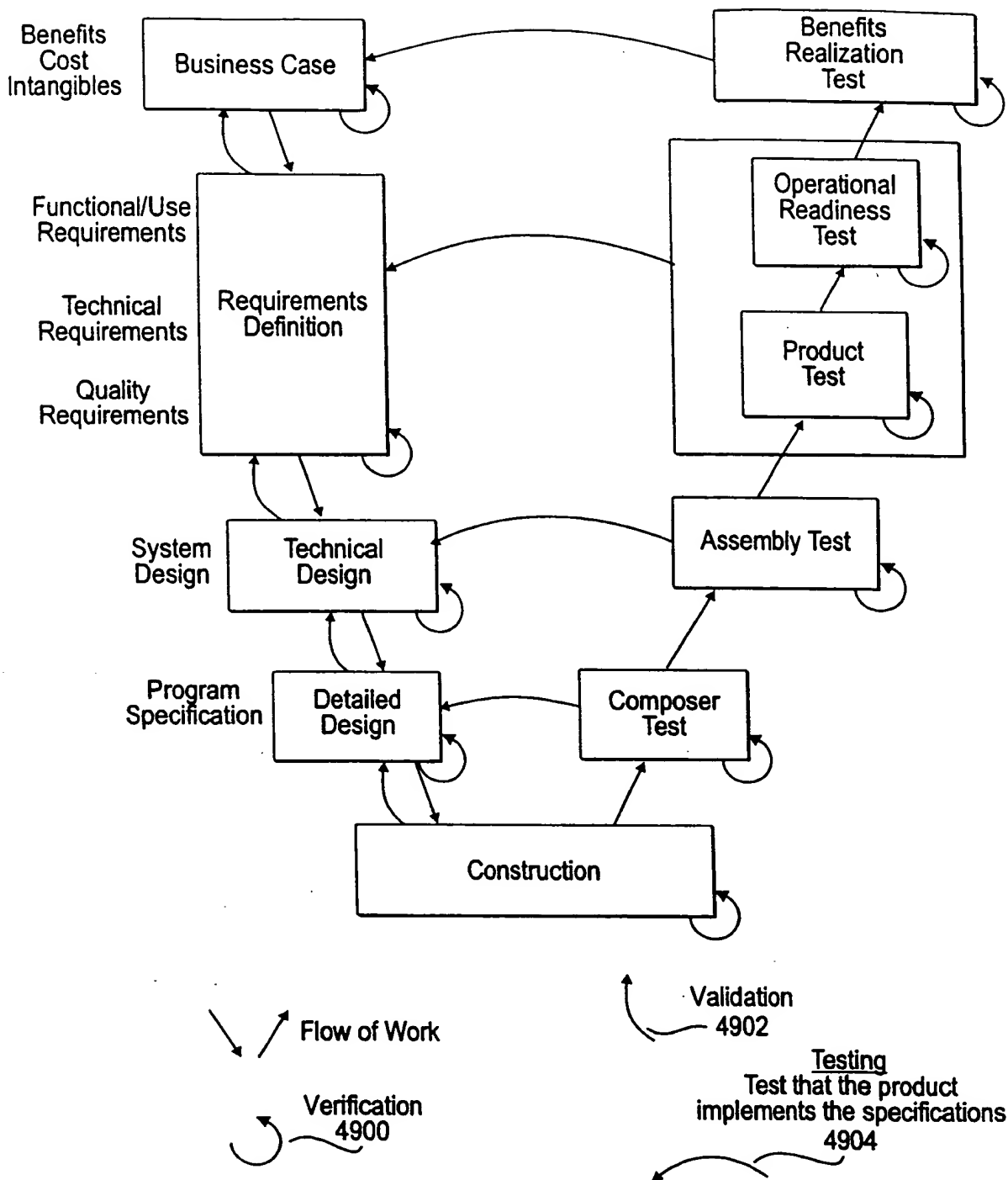


Fig. 49

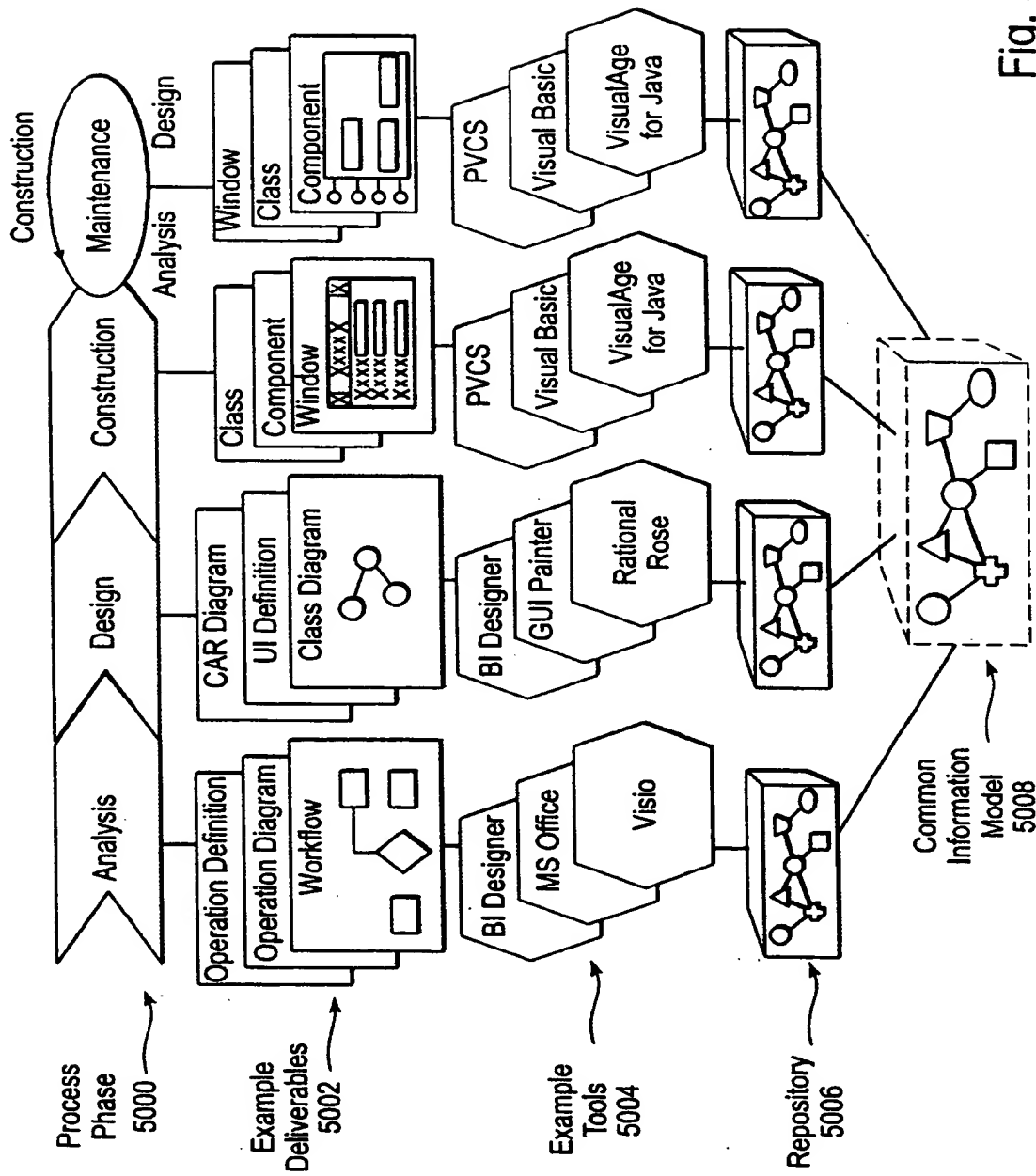


Fig. 50

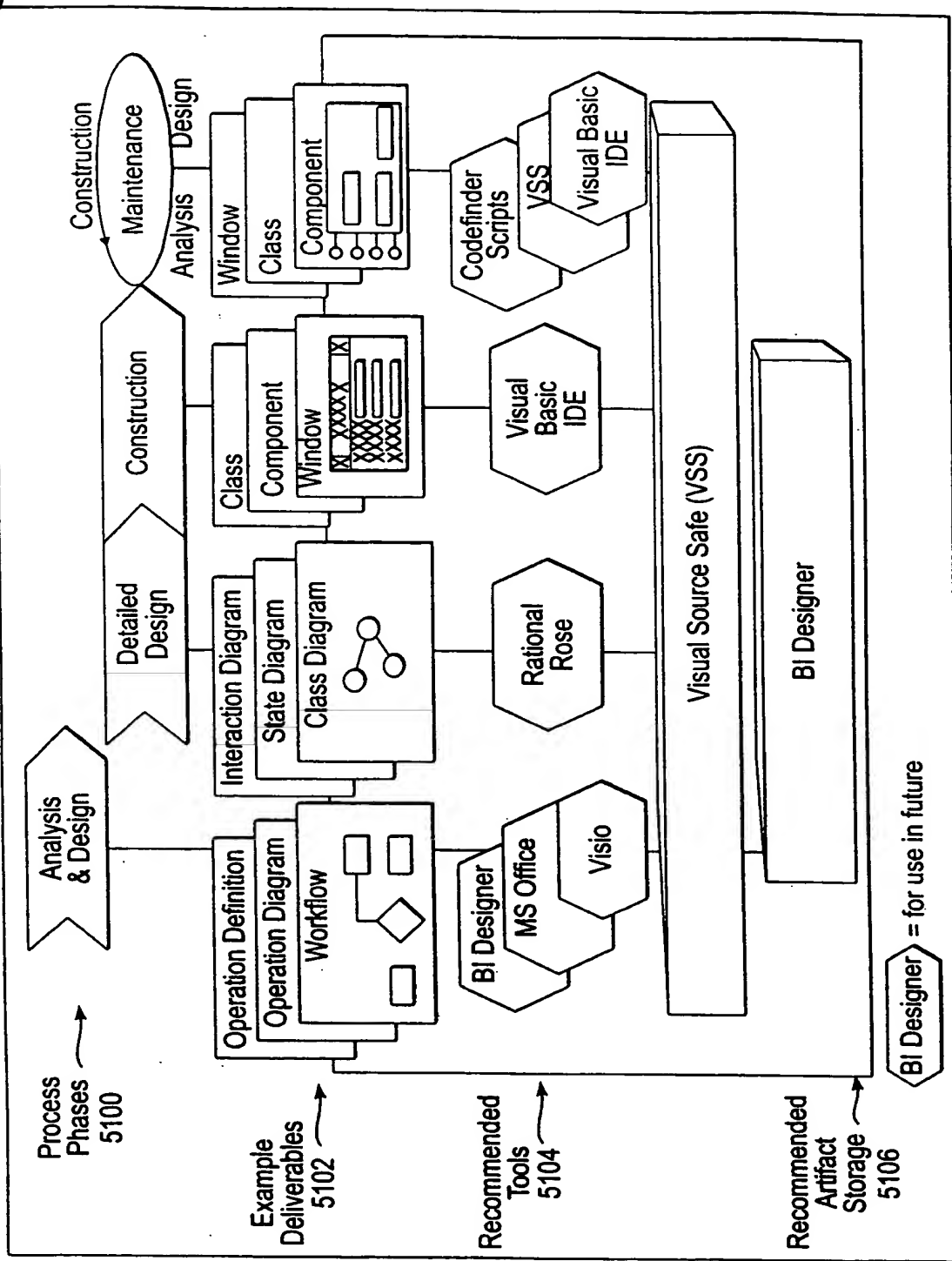


Fig. 51

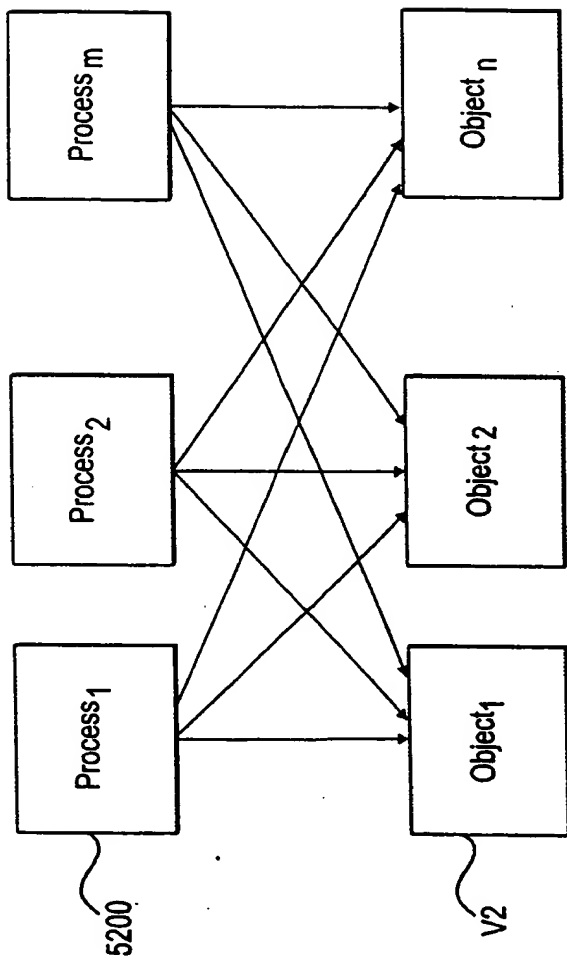


Fig. 52

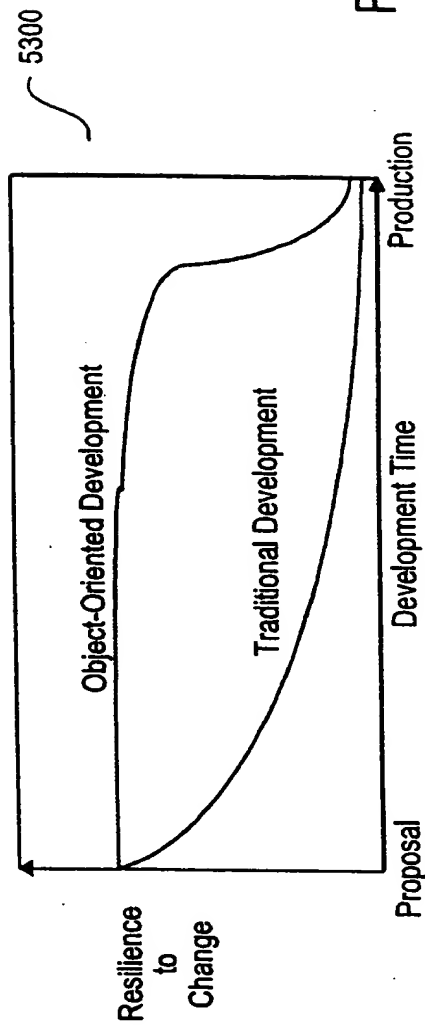


Fig. 53





5400

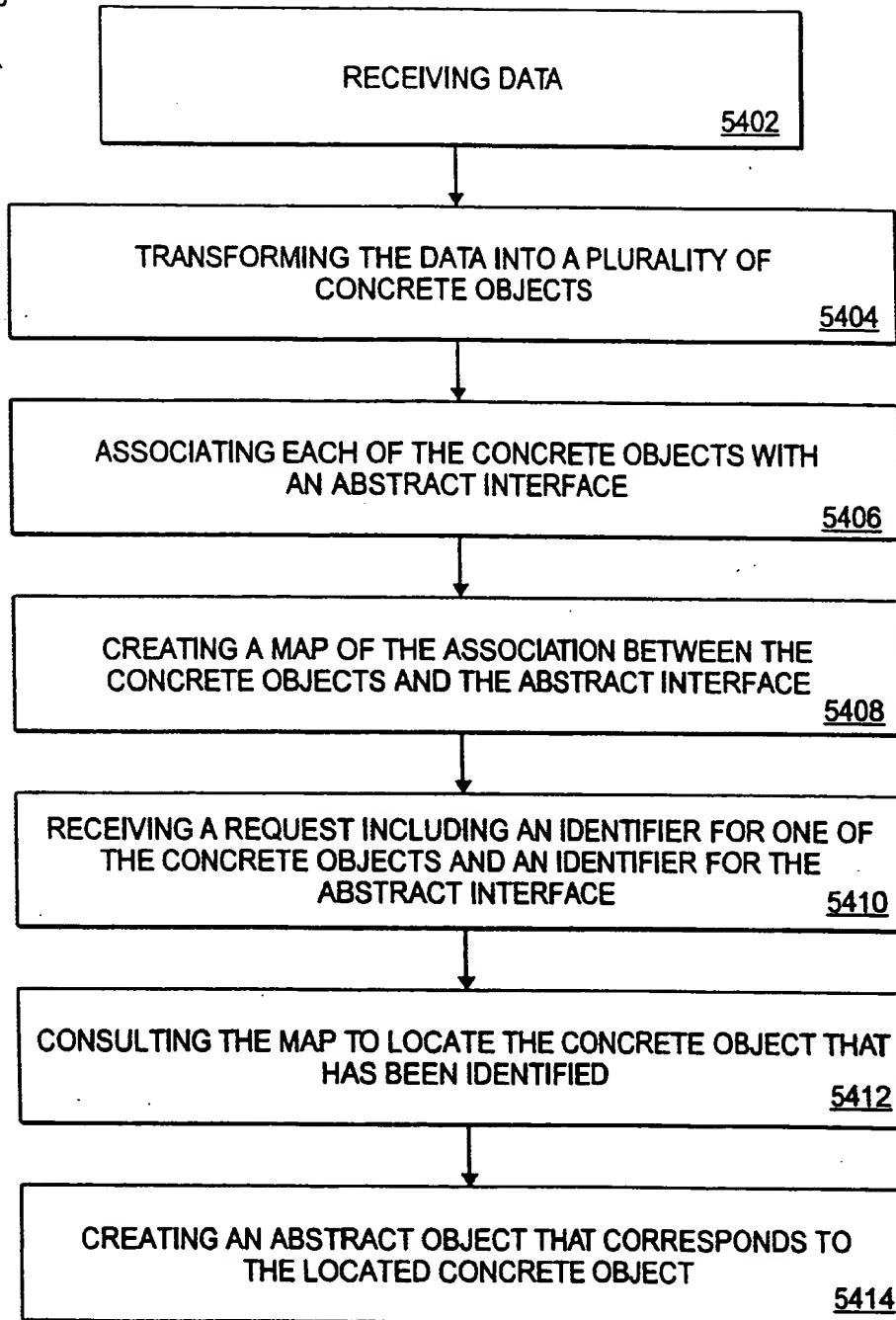


Fig. 54



5500

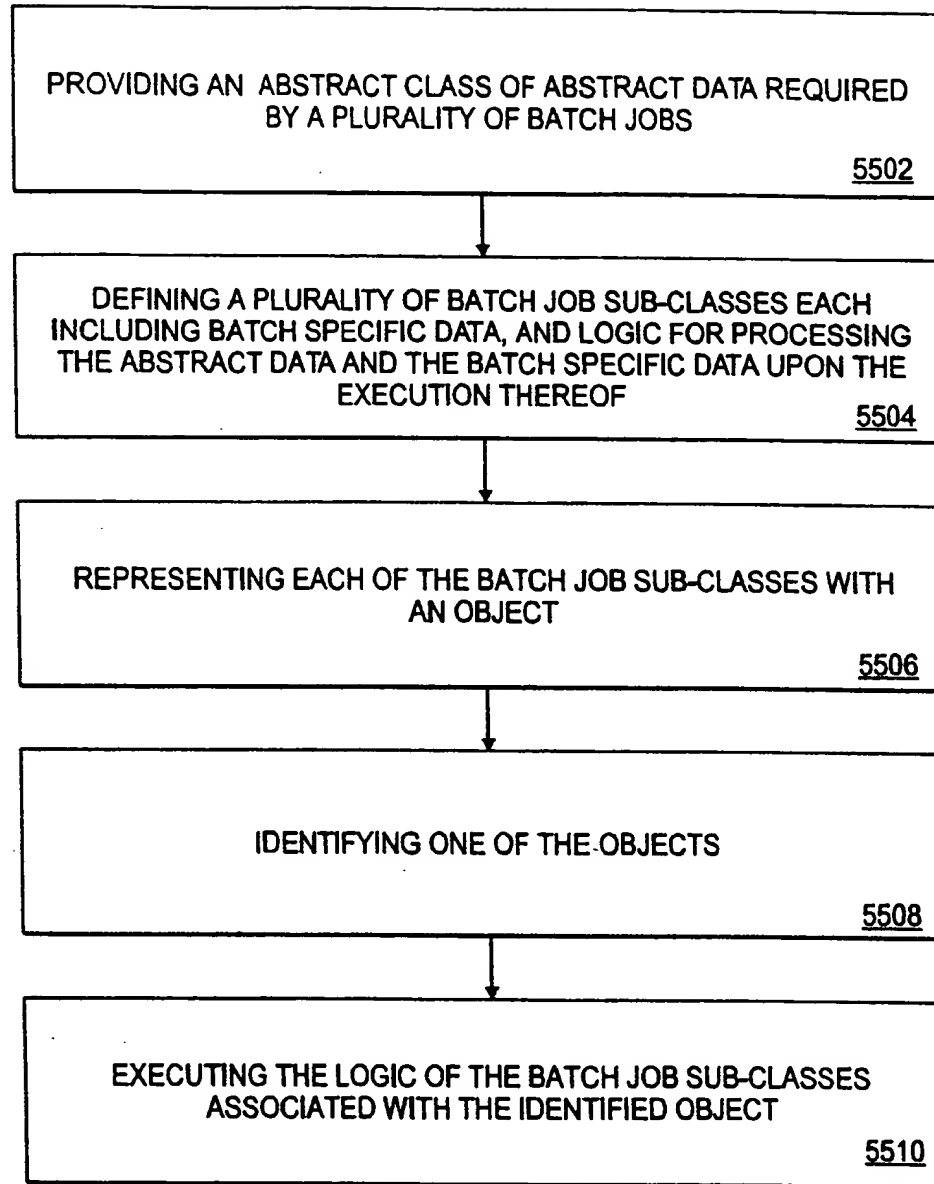


Fig. 55

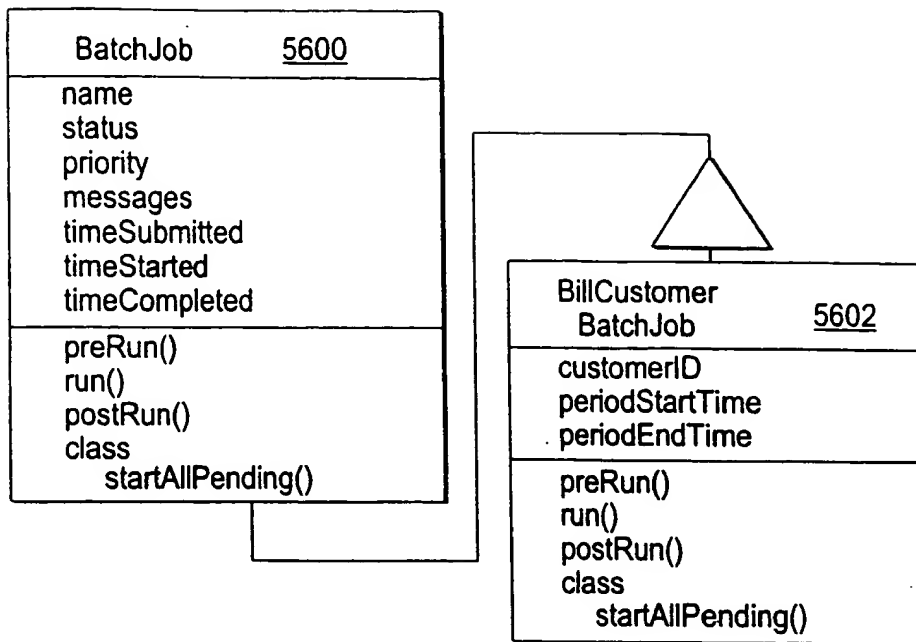
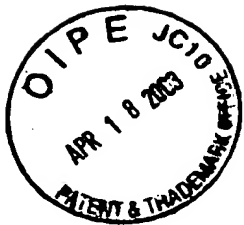


Fig. 56

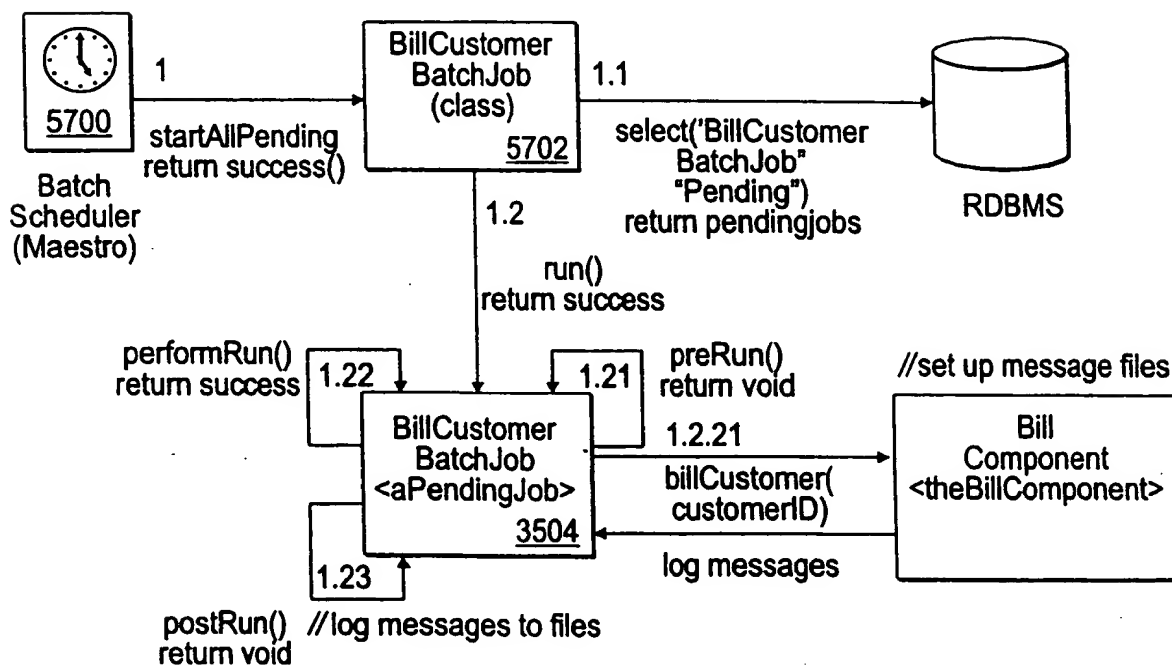


Fig. 57



5800

STORING A PLURALITY OF ATTRIBUTE VALUES FOR A BUSINESS  
OBJECT IN AN ATTRIBUTE DICTIONARY

5802

PROVIDING A PLURALITY OF ATTRIBUTE NAMES IN THE  
ATTRIBUTE DICTIONARY FOR THE STORED ATTRIBUTE VALUES

5804

VERIFYING THAT A CURRENT USER IS AUTHORIZED TO EITHER  
SET OR GET ONE OF THE ATTRIBUTE VALUES UPON A REQUEST  
WHICH INCLUDES THE ATTRIBUTE NAME THAT CORRESPONDS  
TO THE ATTRIBUTE VALUE

5806

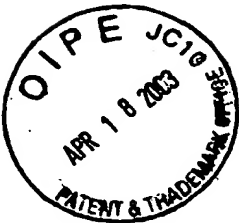
OBTAINING OR UPDATING THE ATTRIBUTE VALUE IN THE  
ATTRIBUTE DICTIONARY IF THE VERIFICATION IS SUCCESSFUL

5808

BROADCASTING AN INDICATOR UPON THE ATTRIBUTE VALUE  
BEING UPDATED

5810

Fig. 58



5900

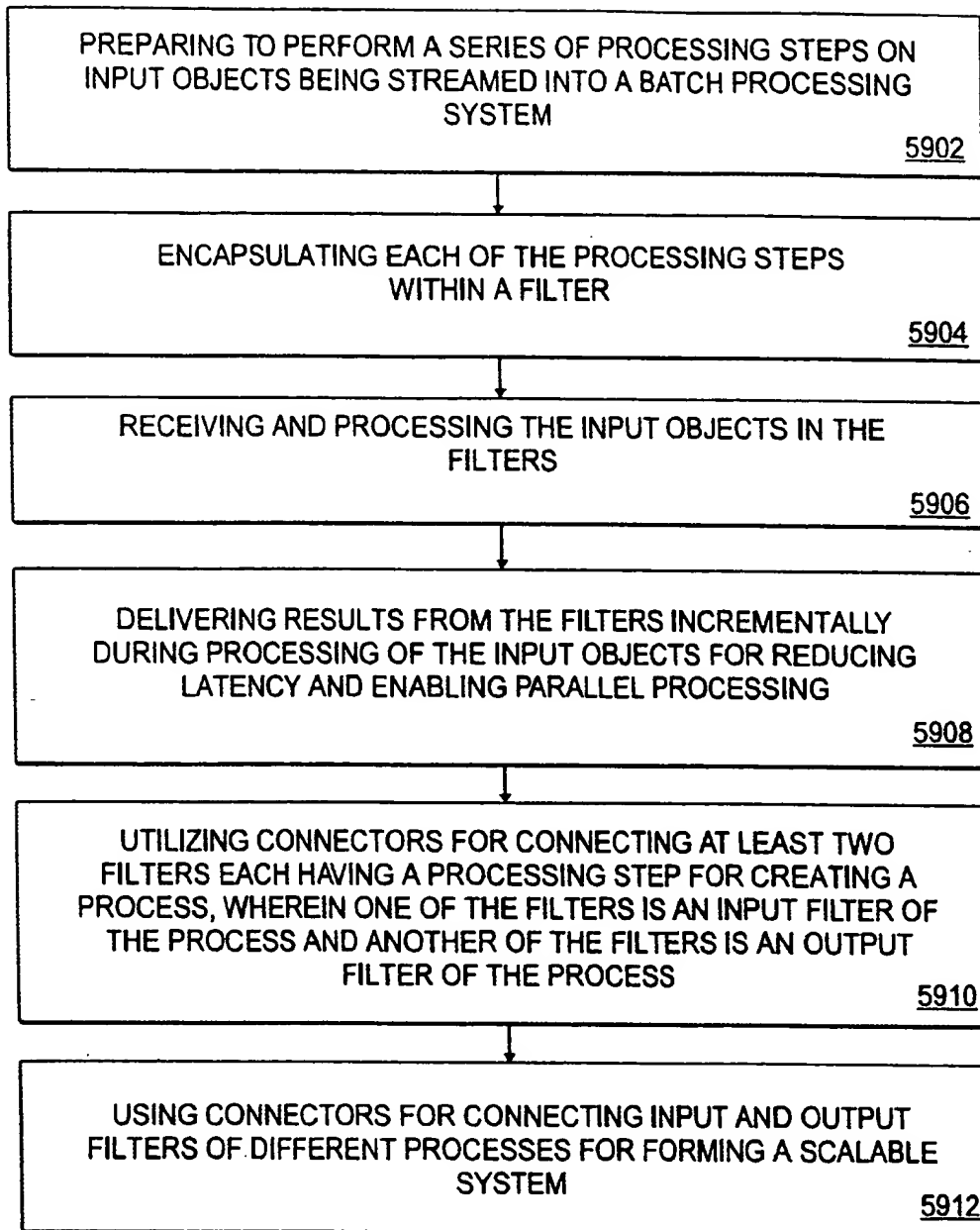


Fig. 59

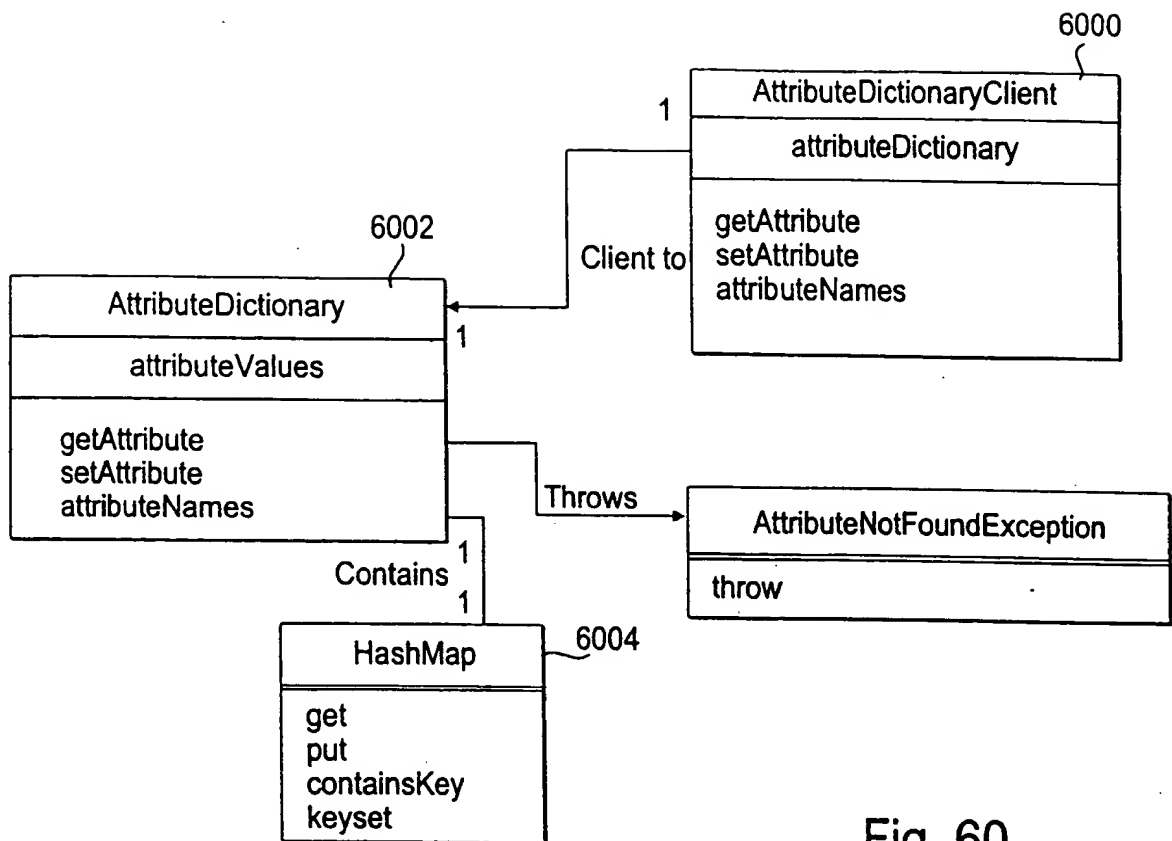
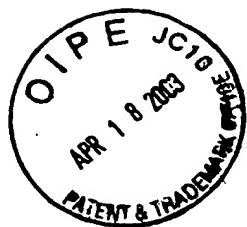


Fig. 60

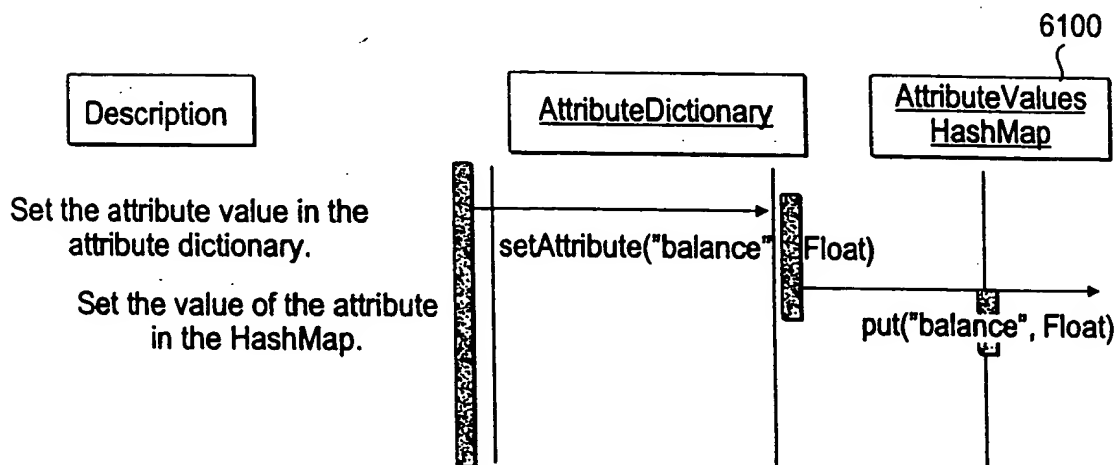
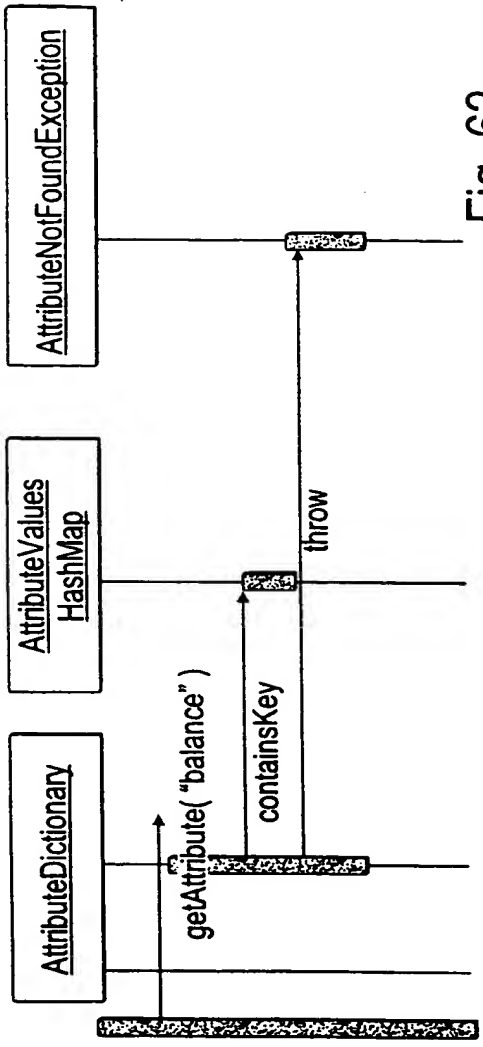


Fig. 61

6200

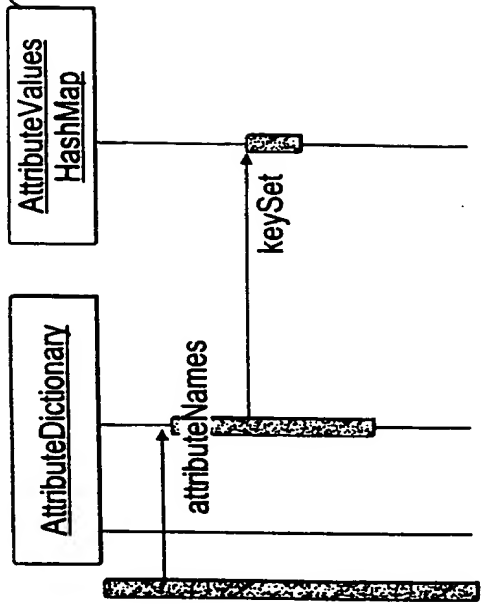


Description

Ask the Attribute Dictionary for the value of the specified attribute name.  
Ask the HashMap if an entry for the specified key exists.  
In this scenario, the attribute does not exist, so throw an Exception.

Fig. 62

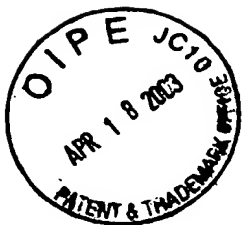
6300



Description

Ask the Attribute Dictionary for the list of populated attributes.  
Attribute Dictionary requests all keys from the HashMap and returns them.

Fig. 63



6400

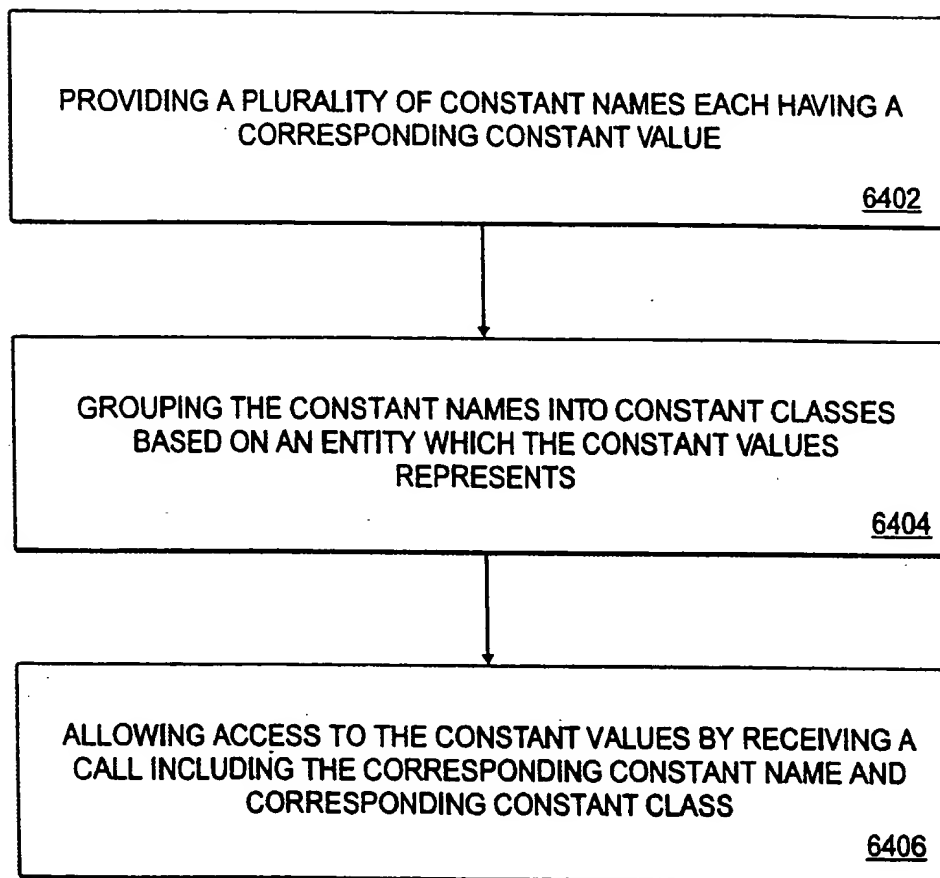


Fig. 64





6500

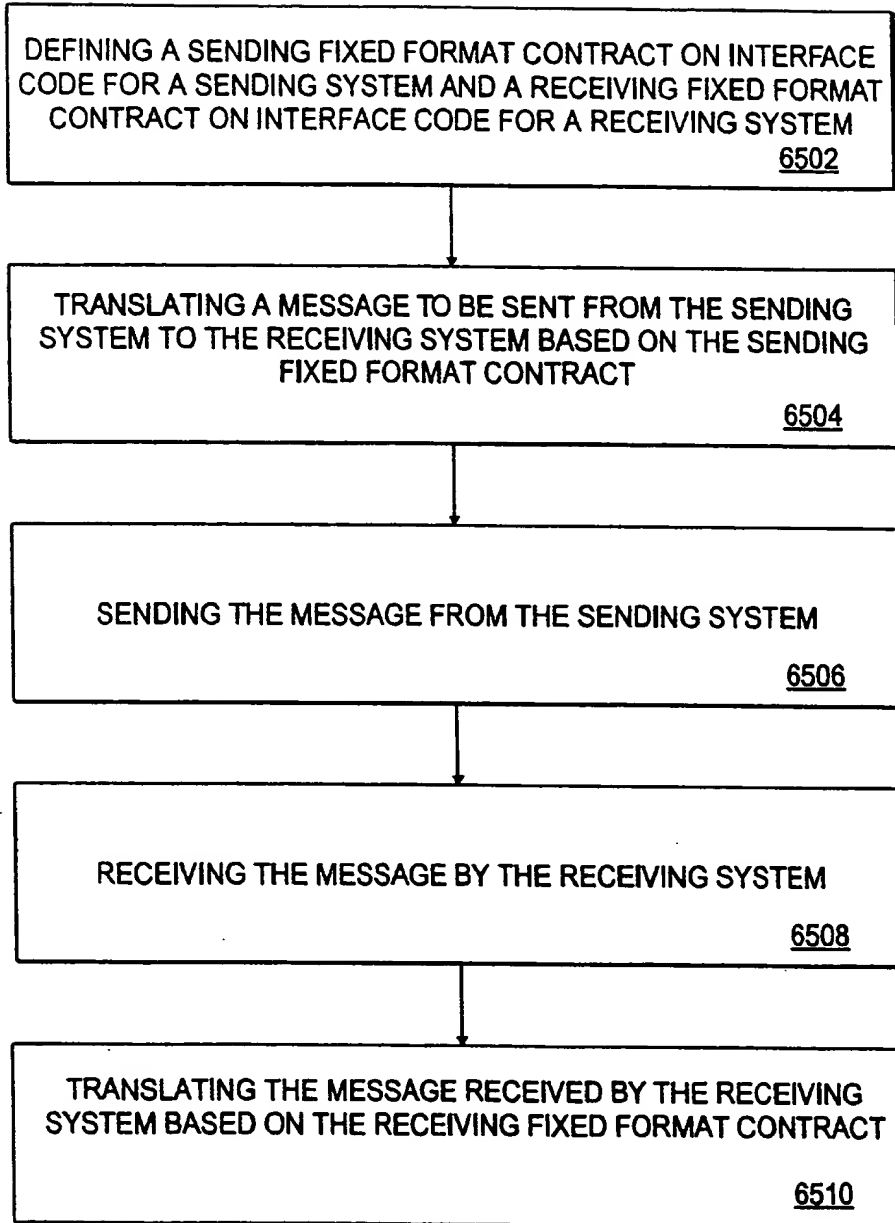


Fig. 65

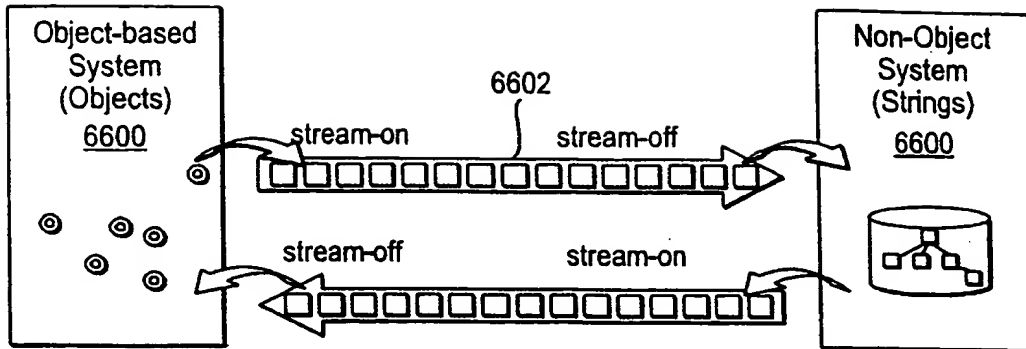


Fig. 66

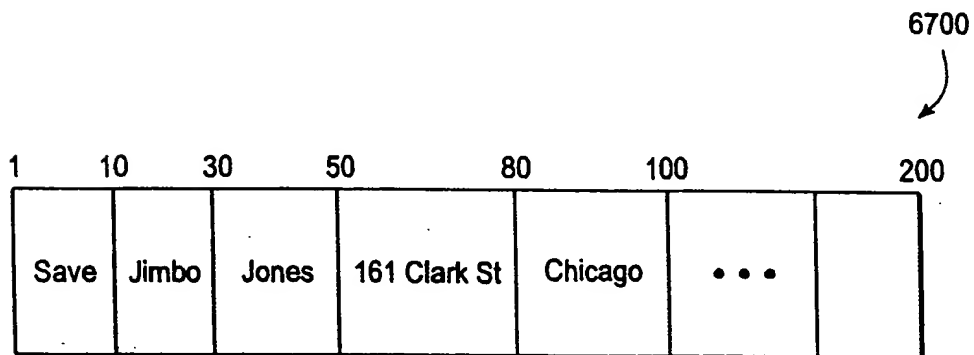


Fig. 67

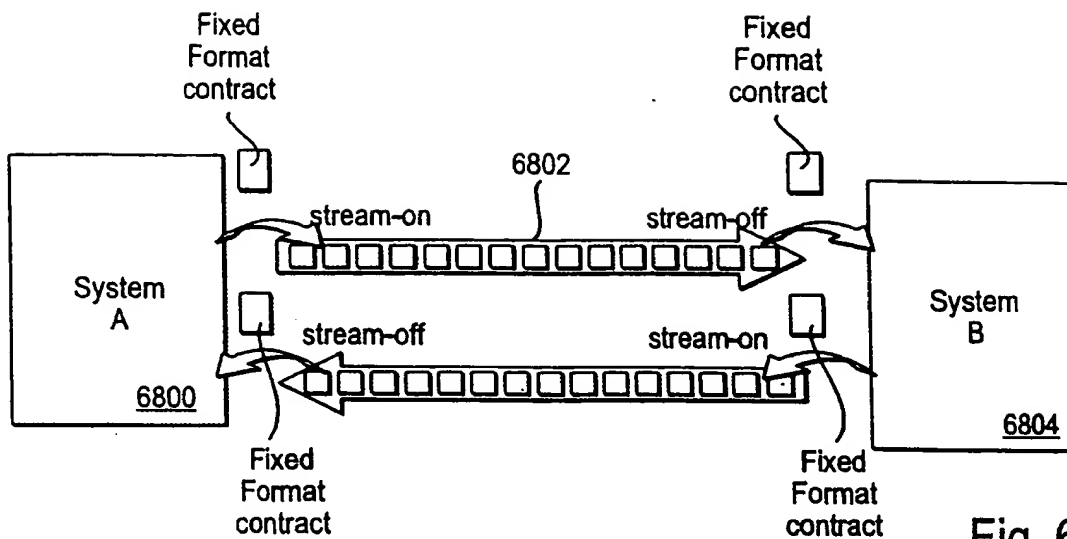


Fig. 68

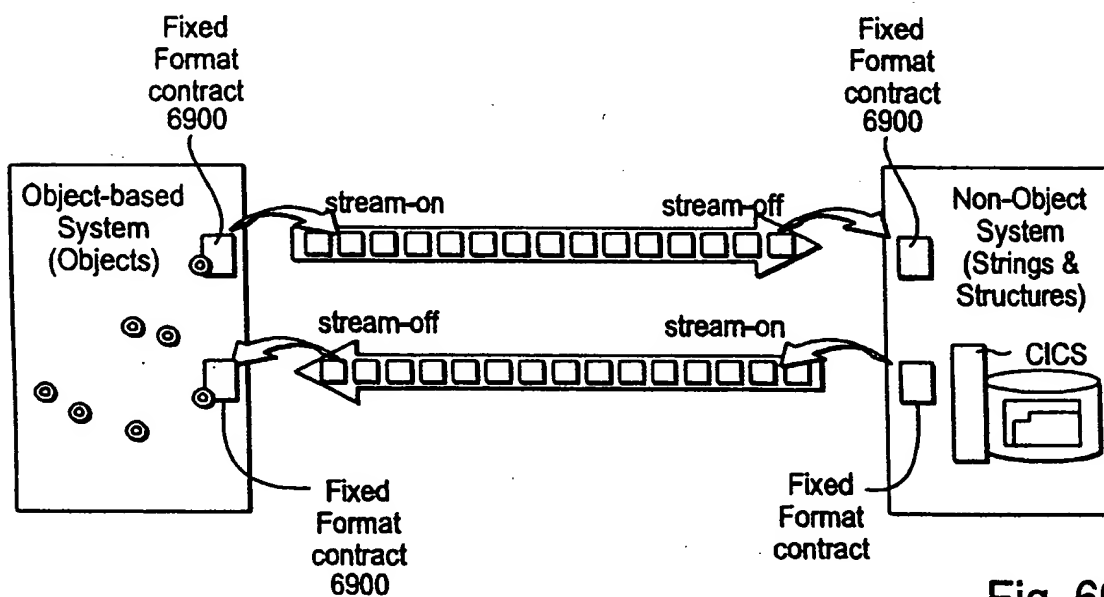


Fig. 69

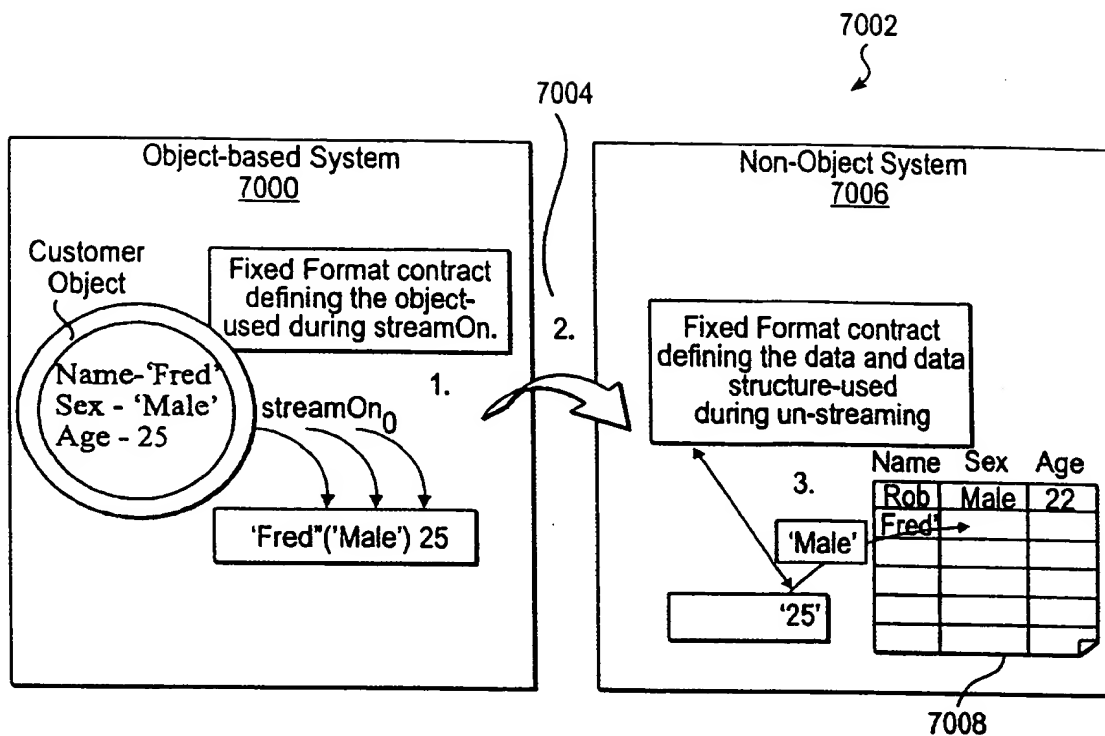


Fig. 70

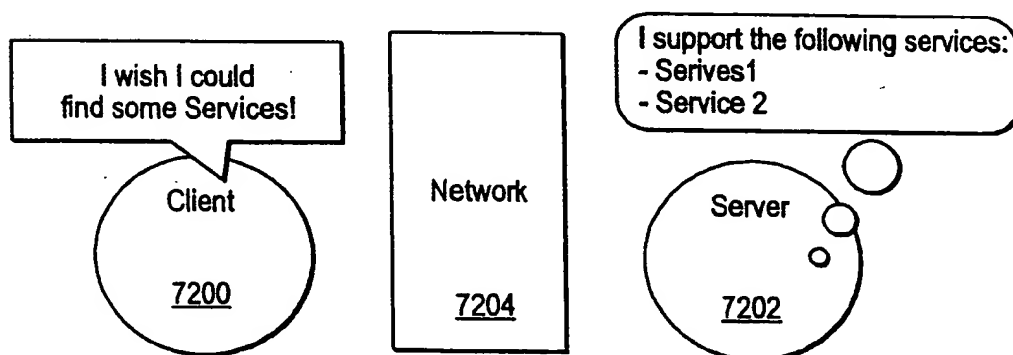


Fig. 72



7100

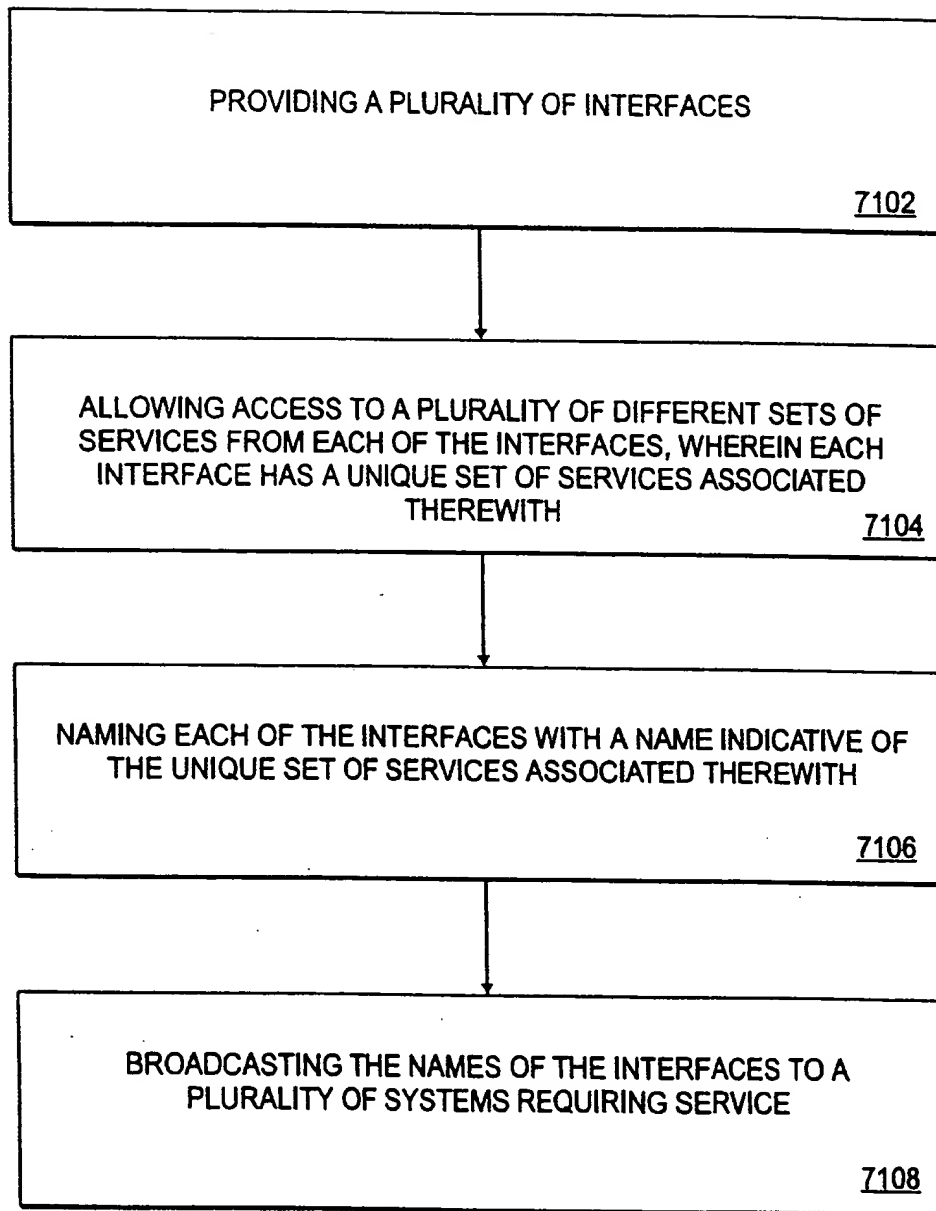


Fig. 71

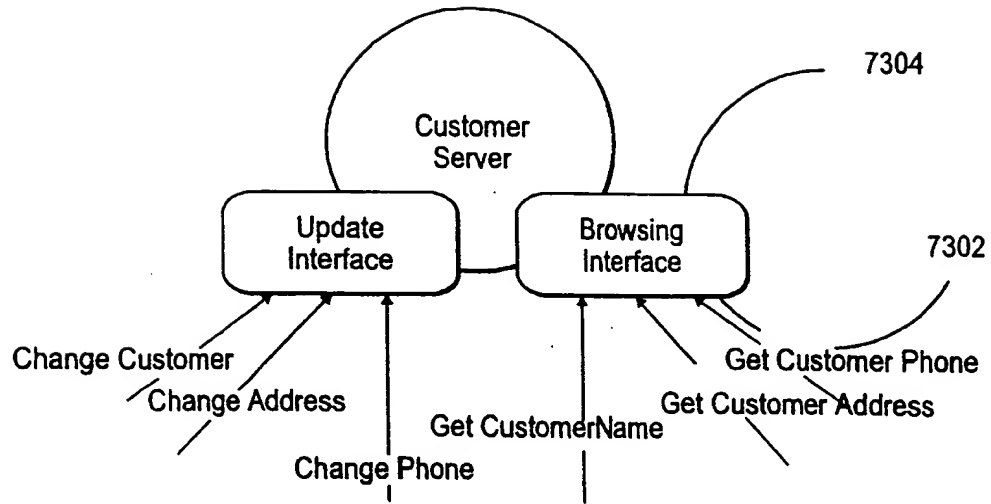


Fig. 73

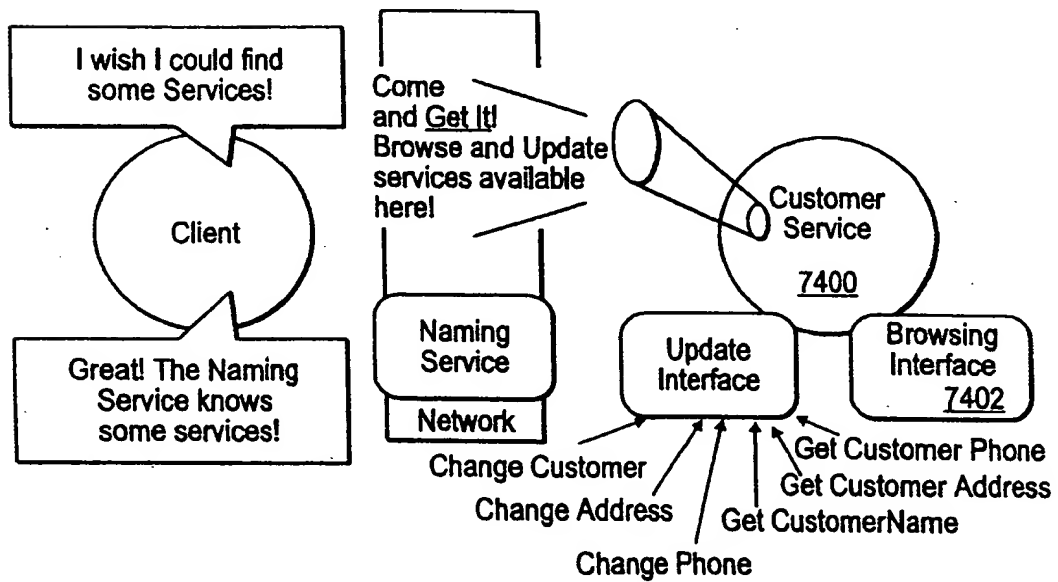


Fig. 74

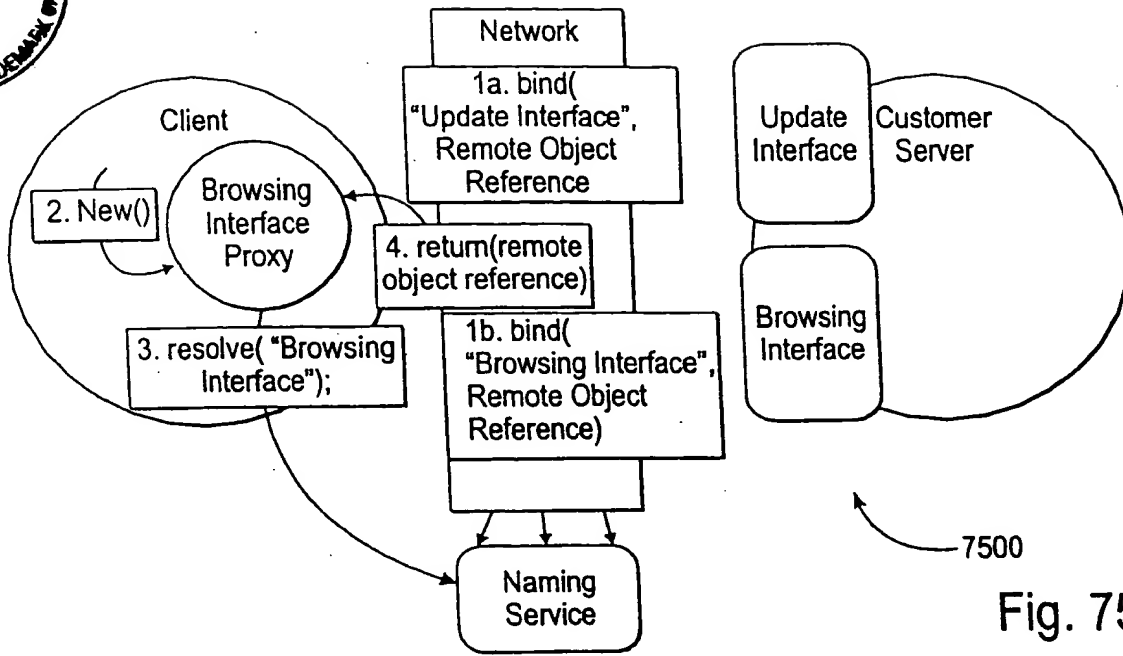


Fig. 75

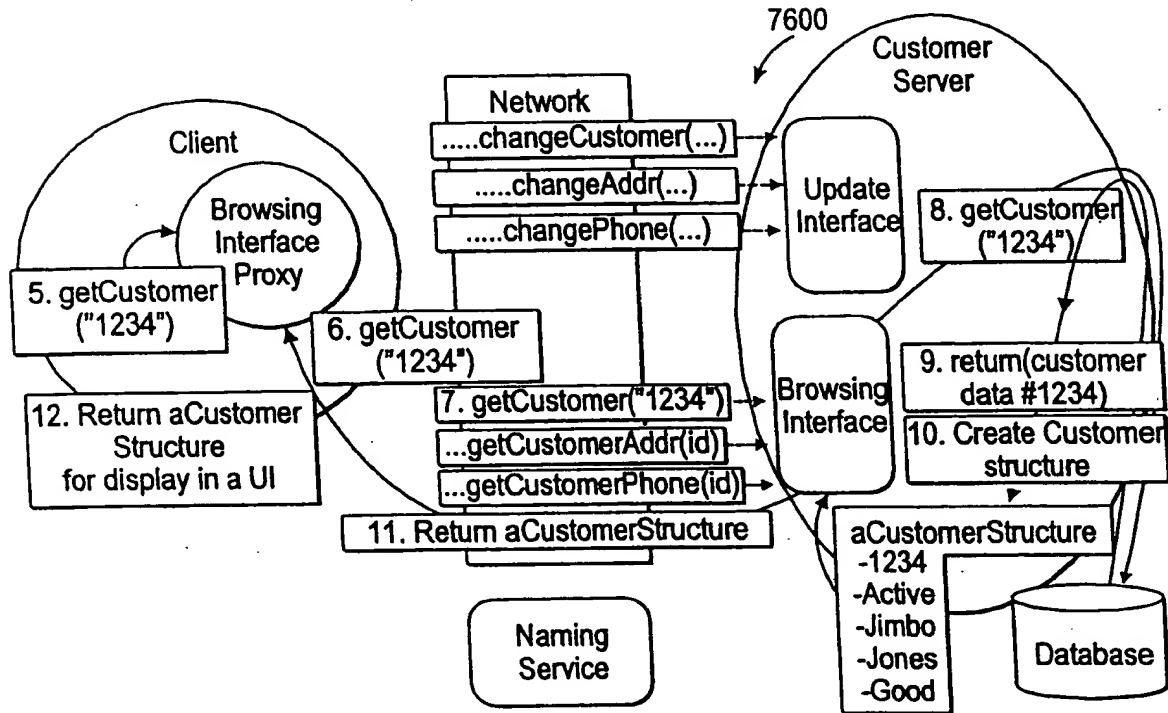


Fig. 76



7700



PROVIDING A PLURALITY OF COMPONENTS COUPLED TO AT  
LEAST ONE CLIENT VIA A COMPONENT INTEGRATION  
ARCHITECTURE FOR SERVICING THE CLIENT

7702



INTERCONNECTING A LEGACY SYSTEM TO THE CLIENT VIA THE  
INTEGRATION ARCHITECTURE USING A LEGACY WRAPPER

7704



INTERFACING THE LEGACY SYSTEM AND THE CLIENT VIA THE  
LEGACY WRAPPER BY COMMUNICATING WITH THE CLIENT BY  
WAY OF A FIRST PROTOCOL AND BY COMMUNICATING WITH THE  
LEGACY SYSTEM BY WAY OF A SECOND PROTOCOL.

7706

Fig. 77



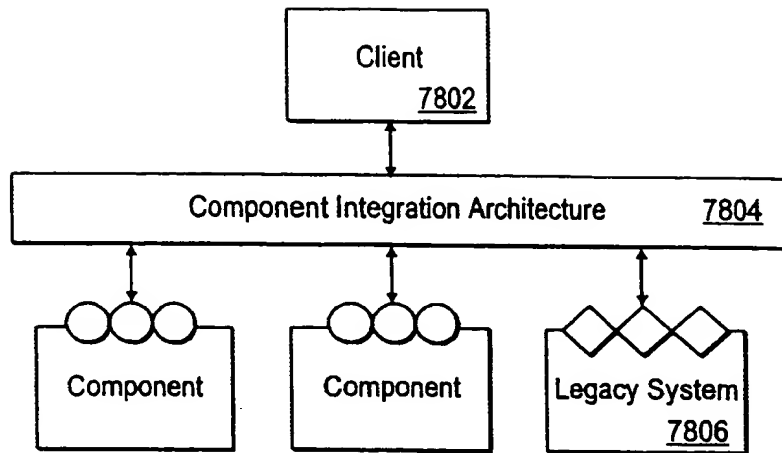
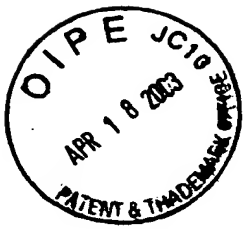


Fig. 78

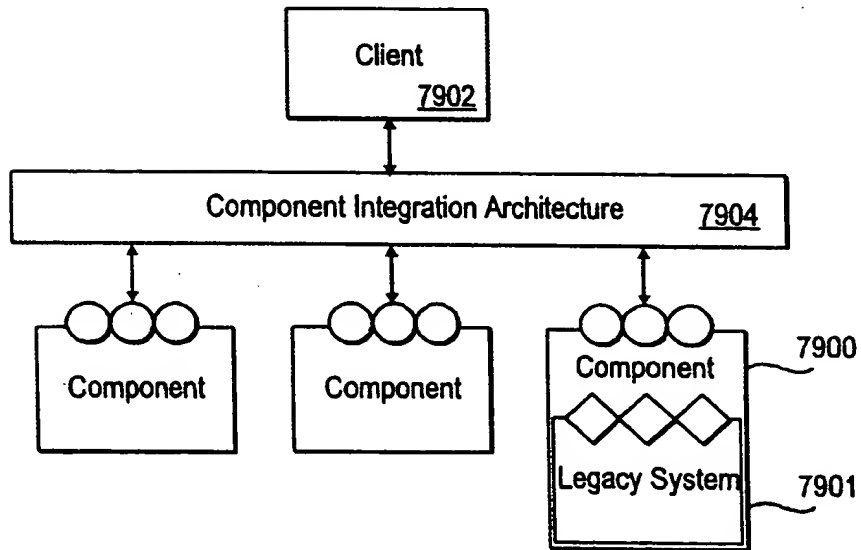


Fig. 79

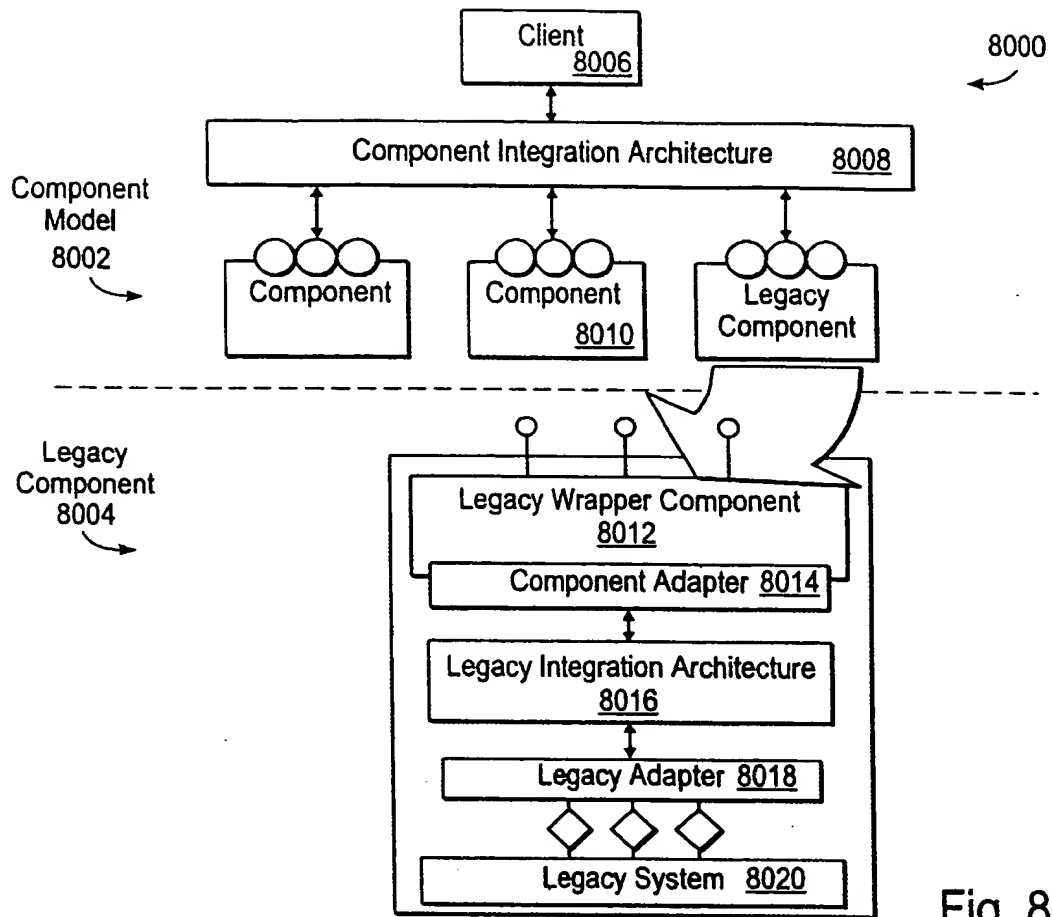
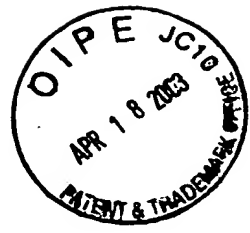


Fig. 80

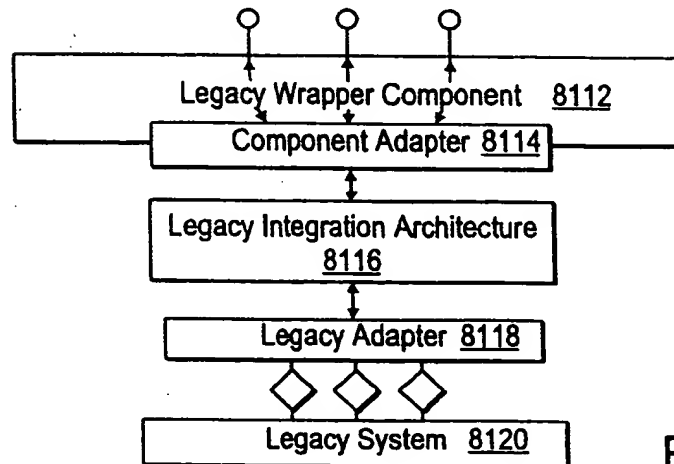


Fig. 81

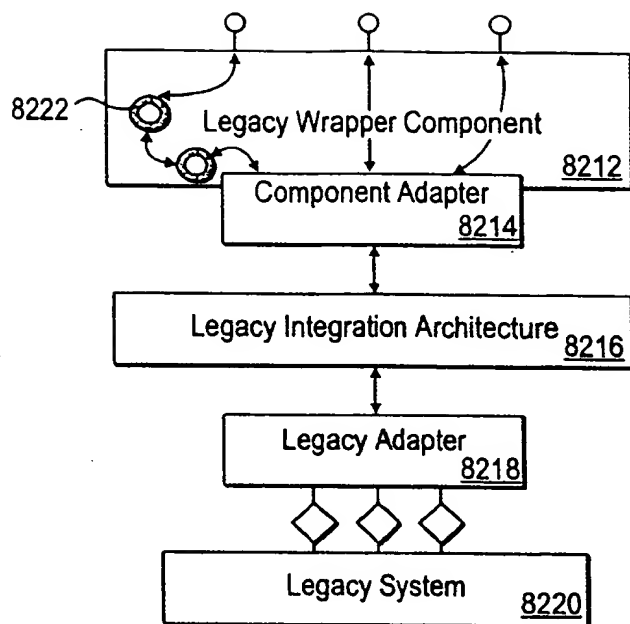
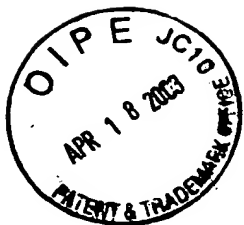
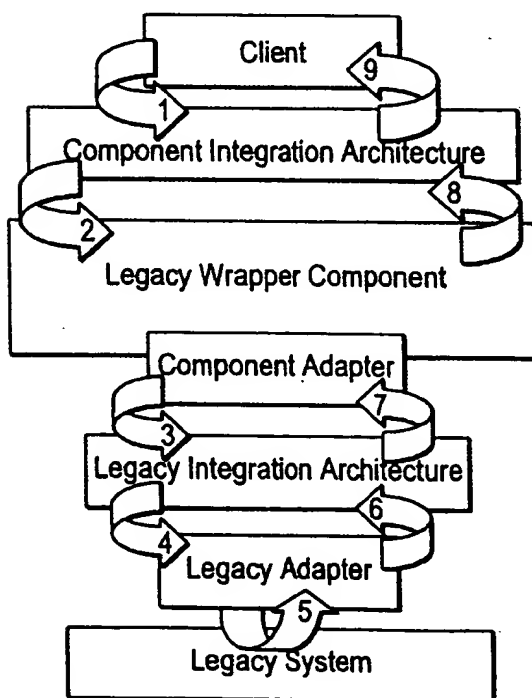


Fig. 82



8300

Fig. 83

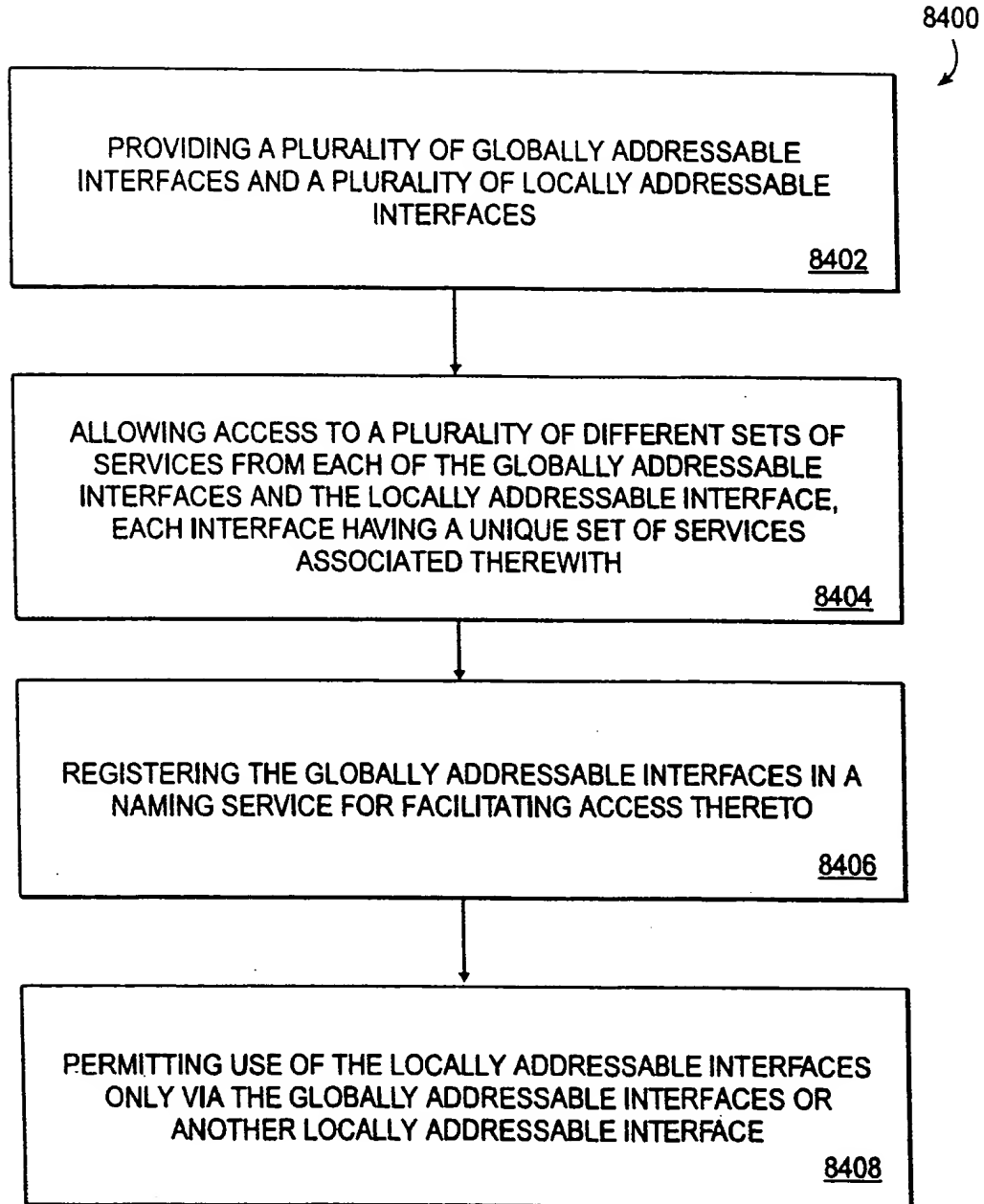
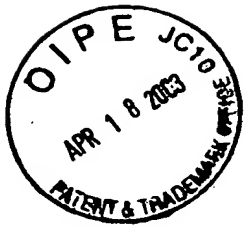


Fig. 84

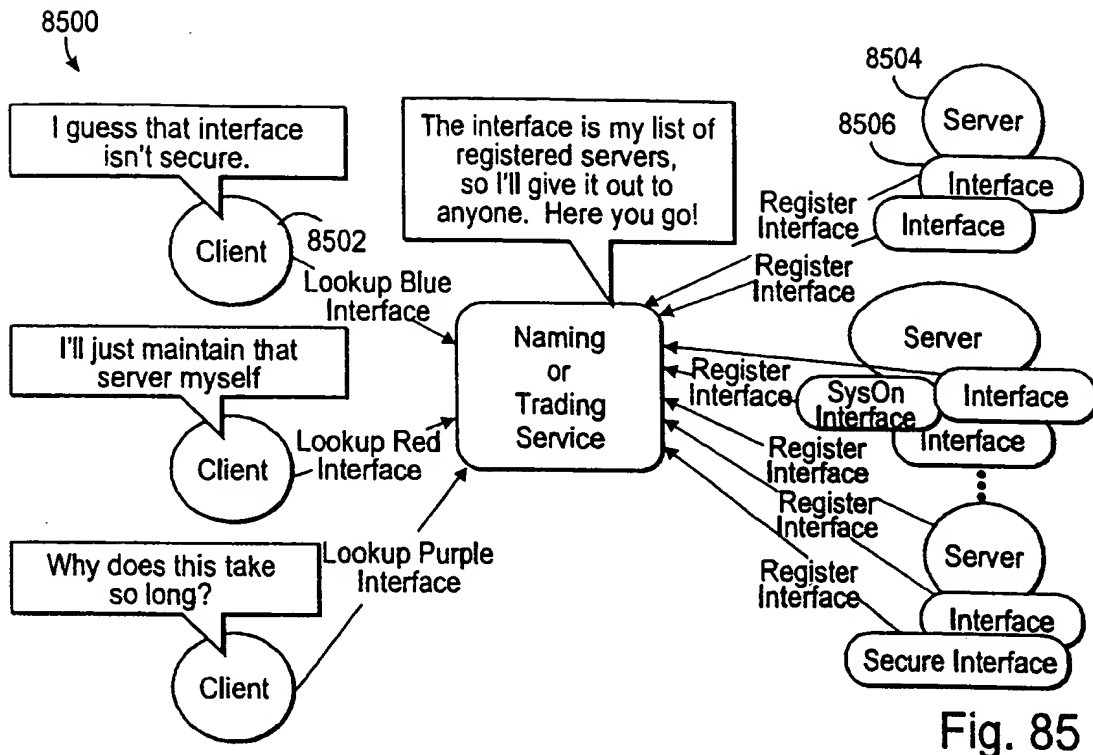


Fig. 85

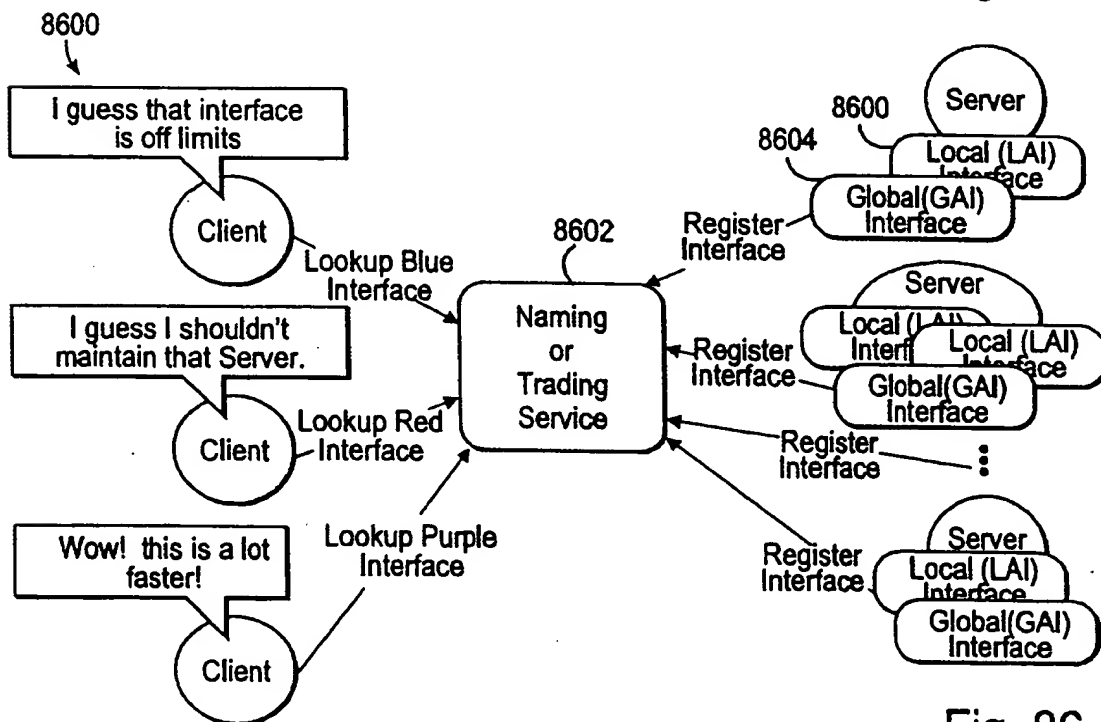


Fig. 86

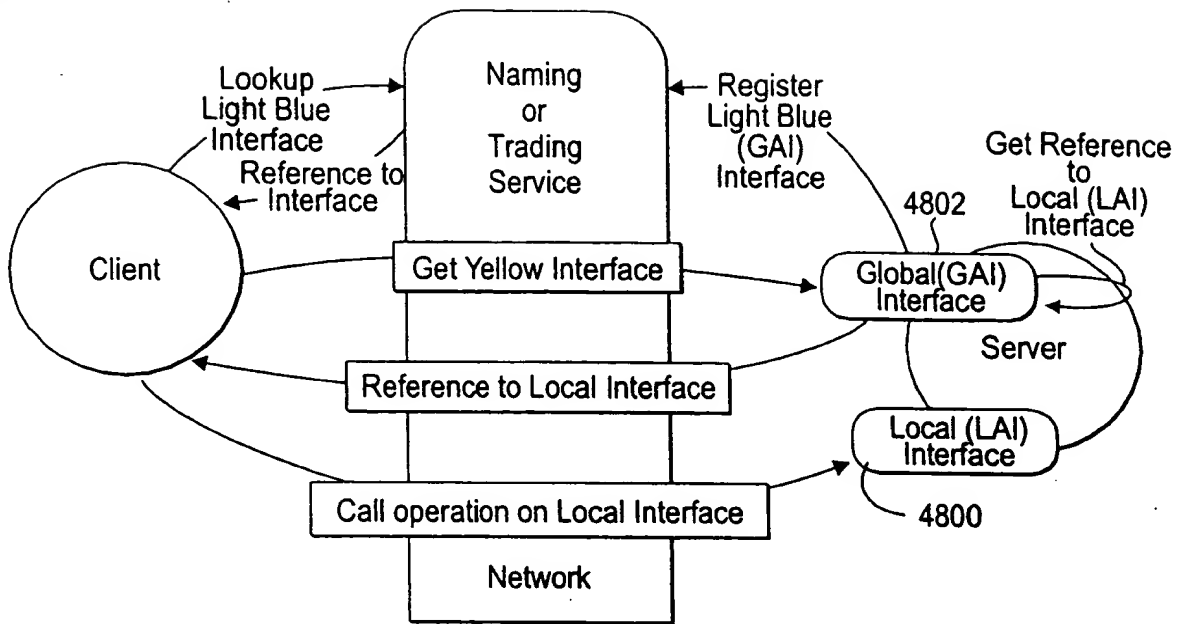


Fig. 87

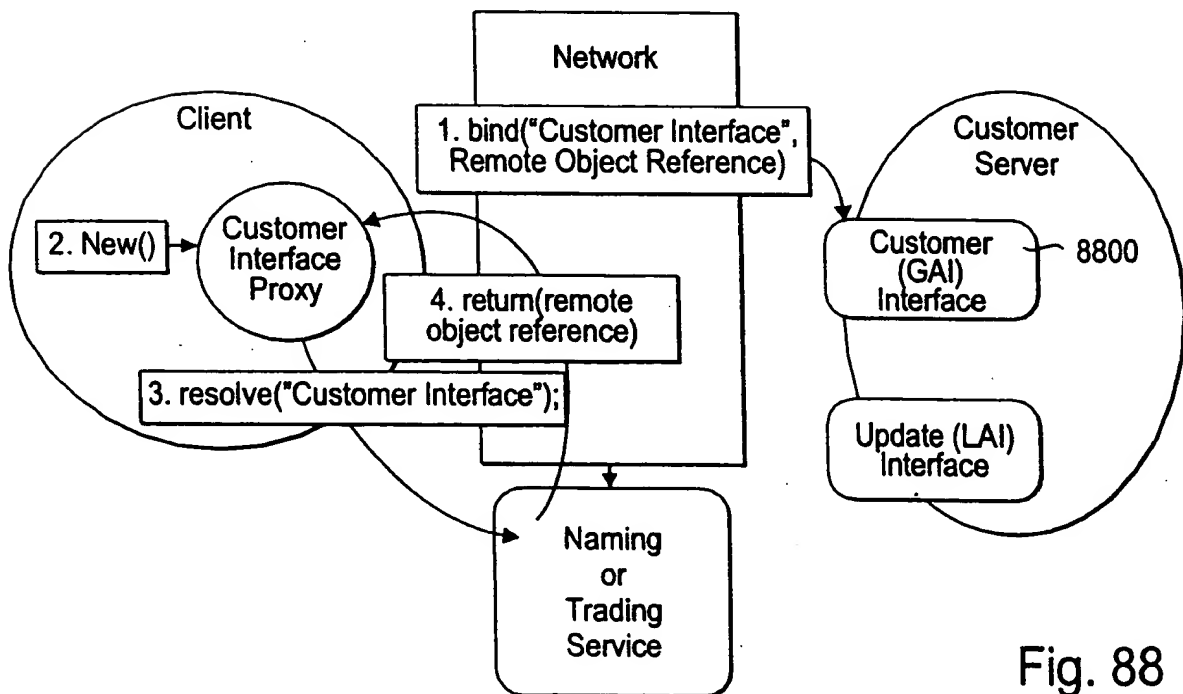


Fig. 88

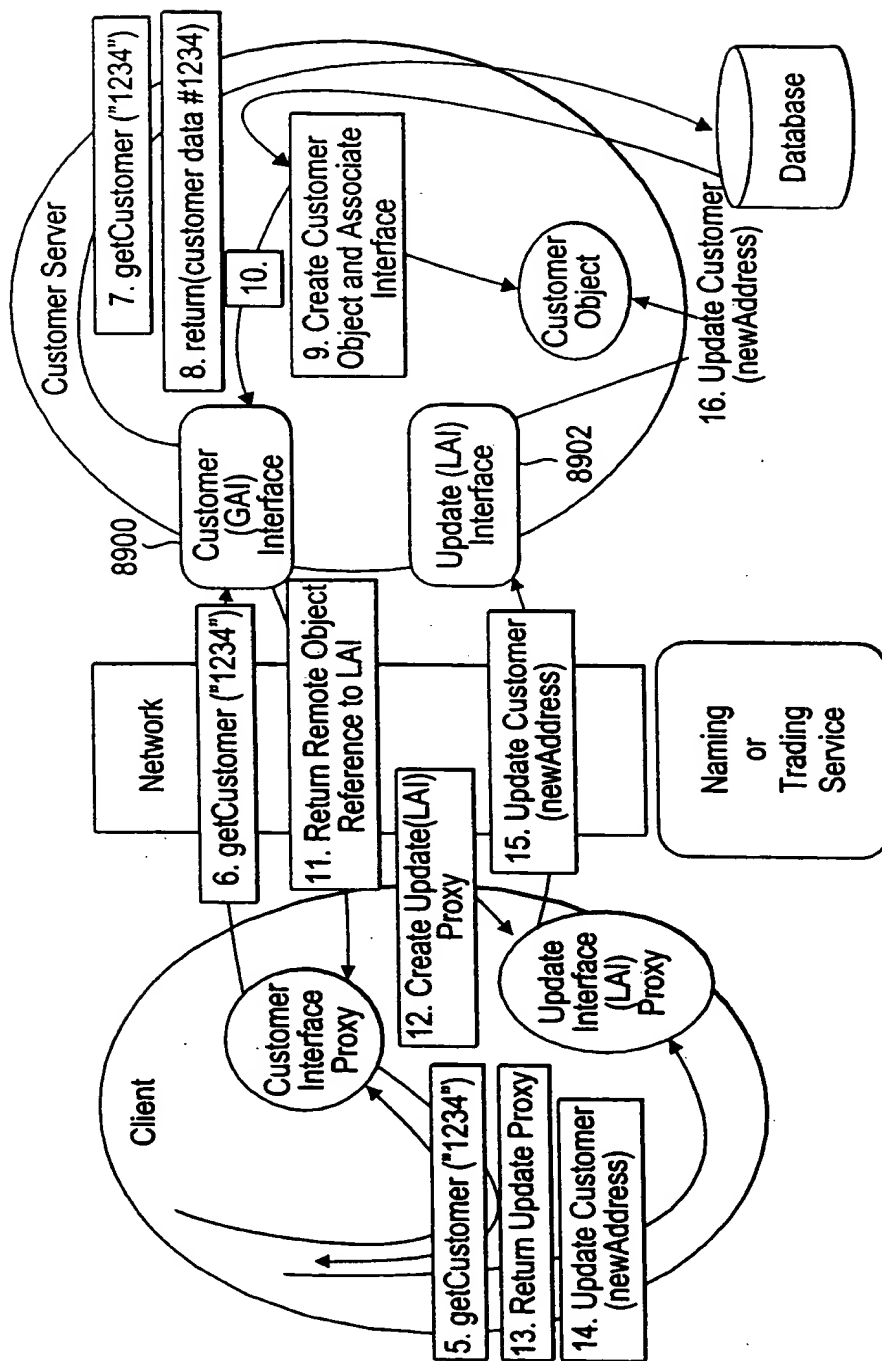


Fig. 89

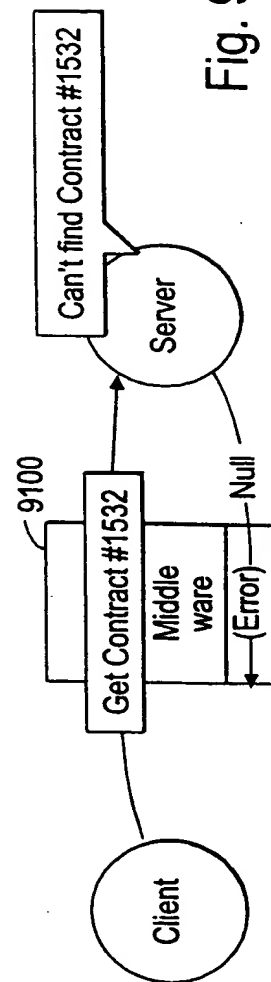


Fig. 91

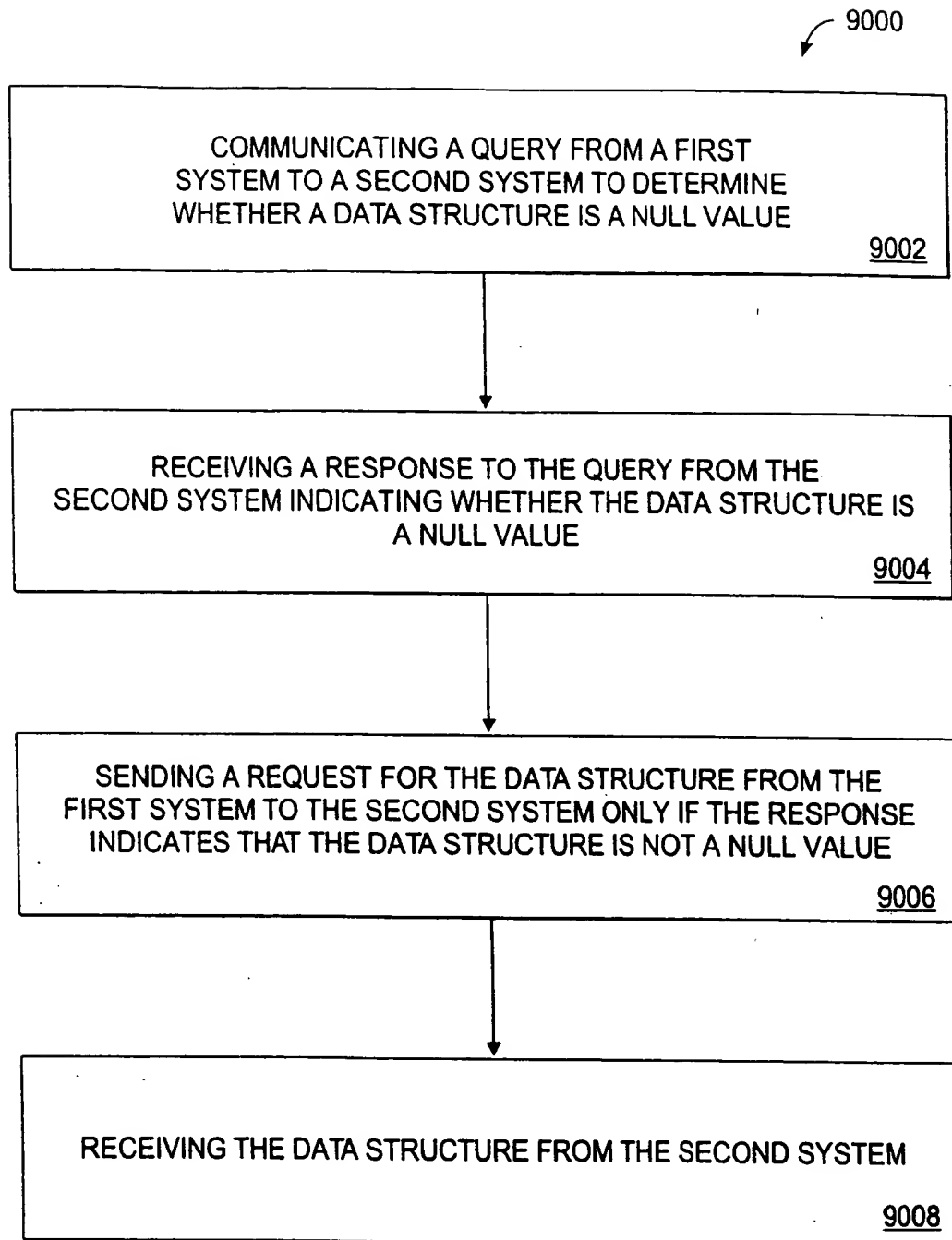


Fig. 90



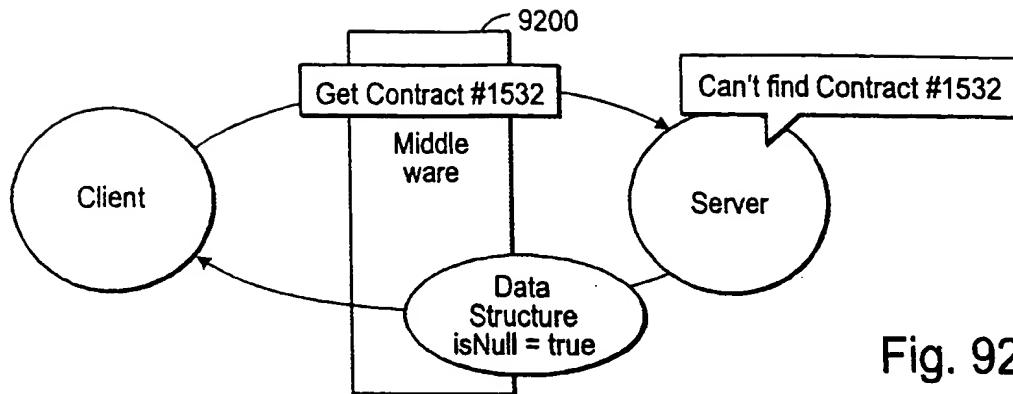


Fig. 92

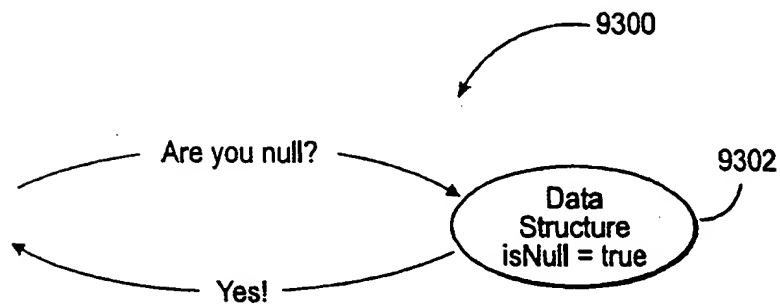


Fig. 93

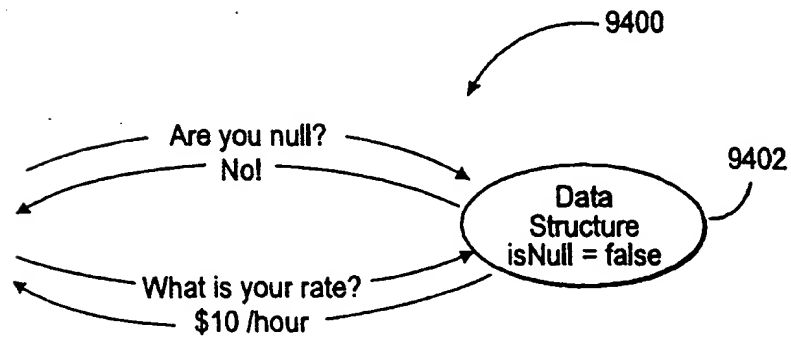


Fig. 94

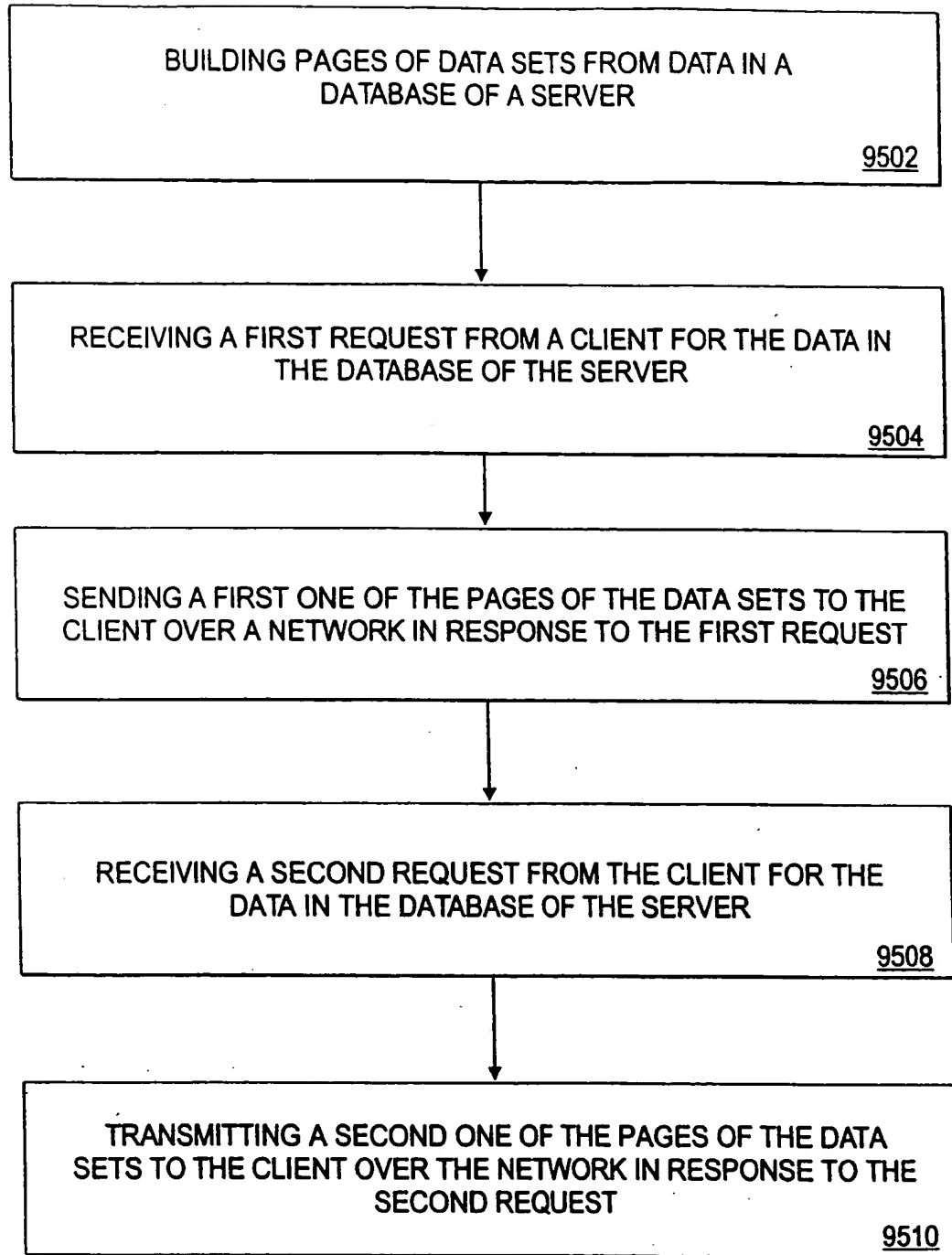
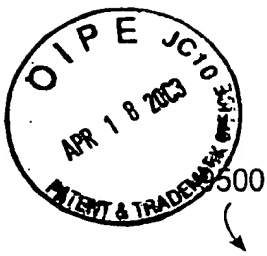


Fig. 95

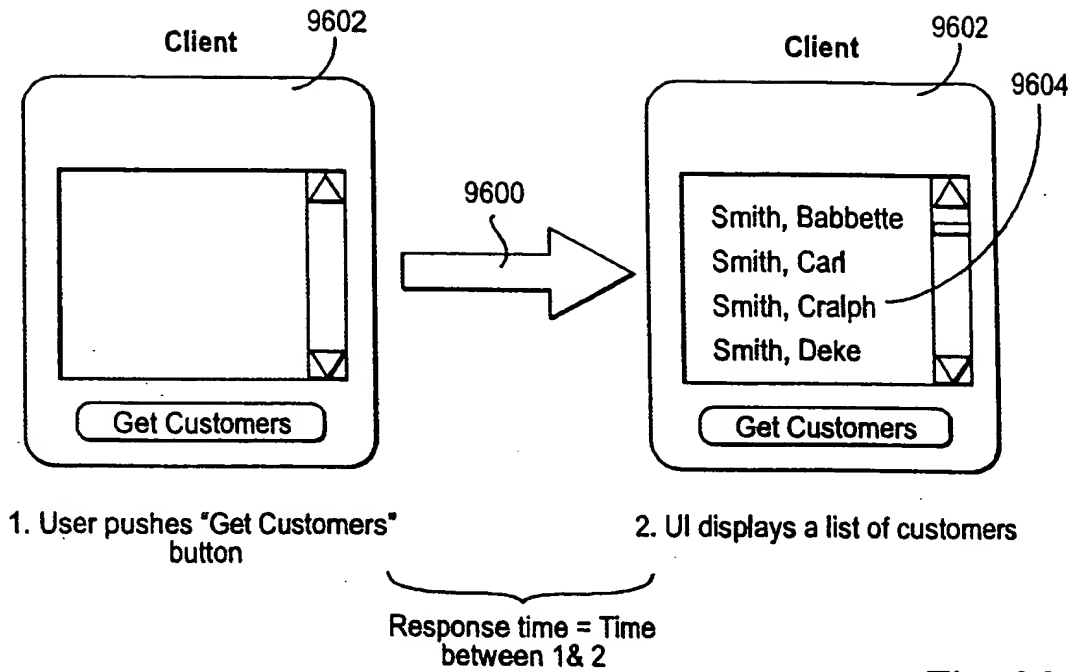
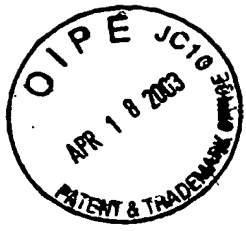


Fig. 96

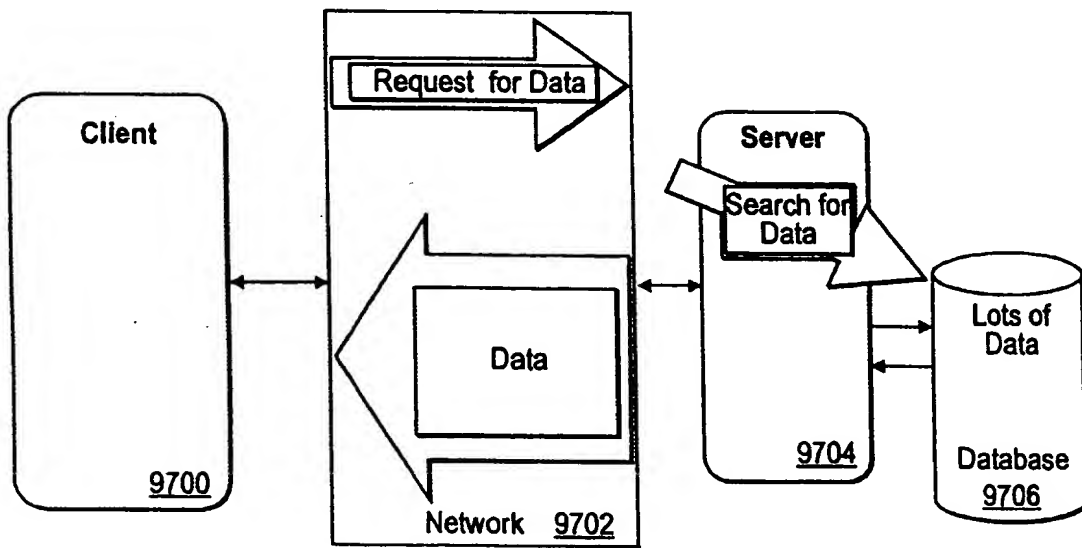


Fig. 97

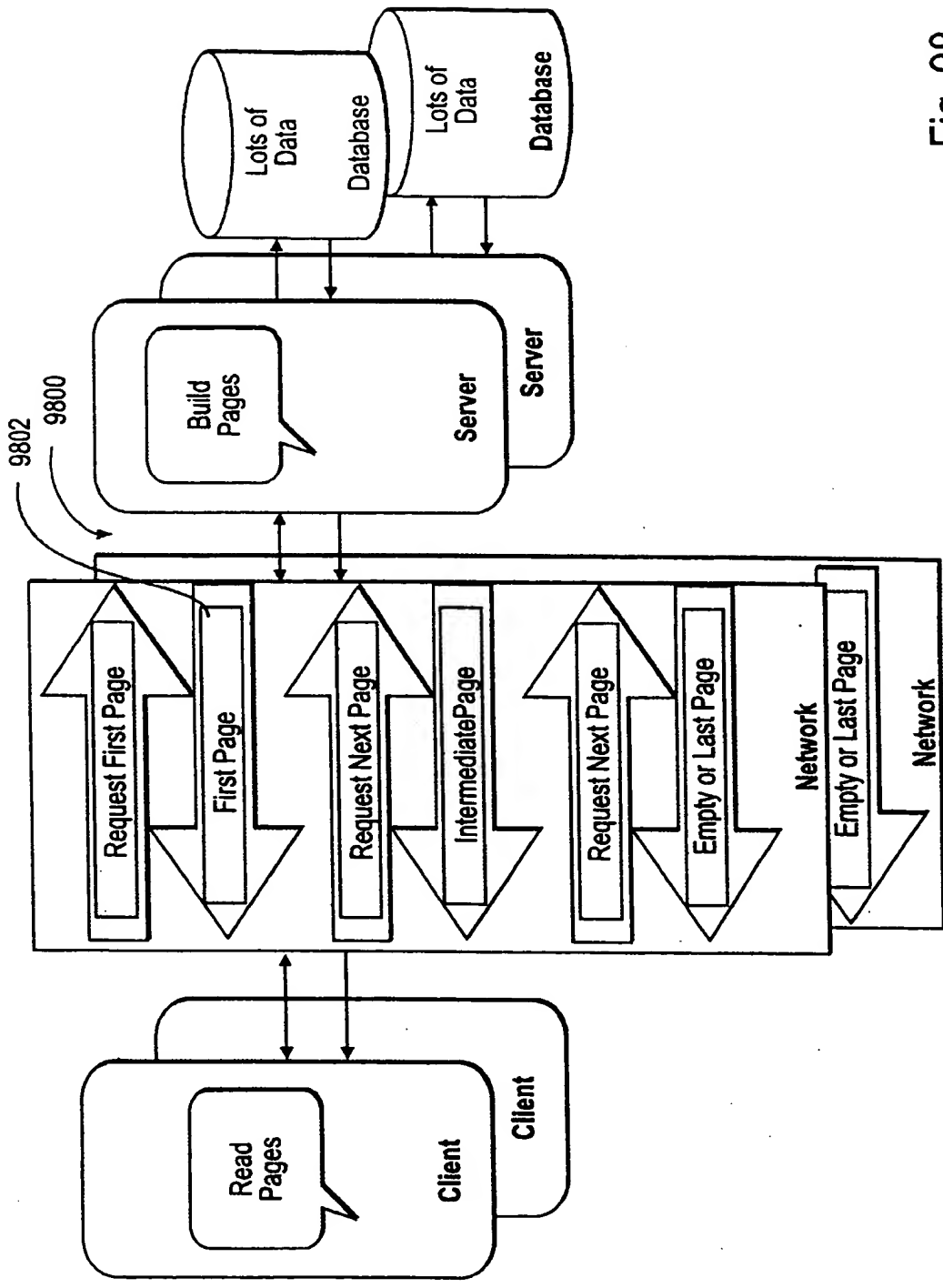
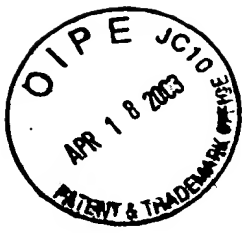


Fig. 98

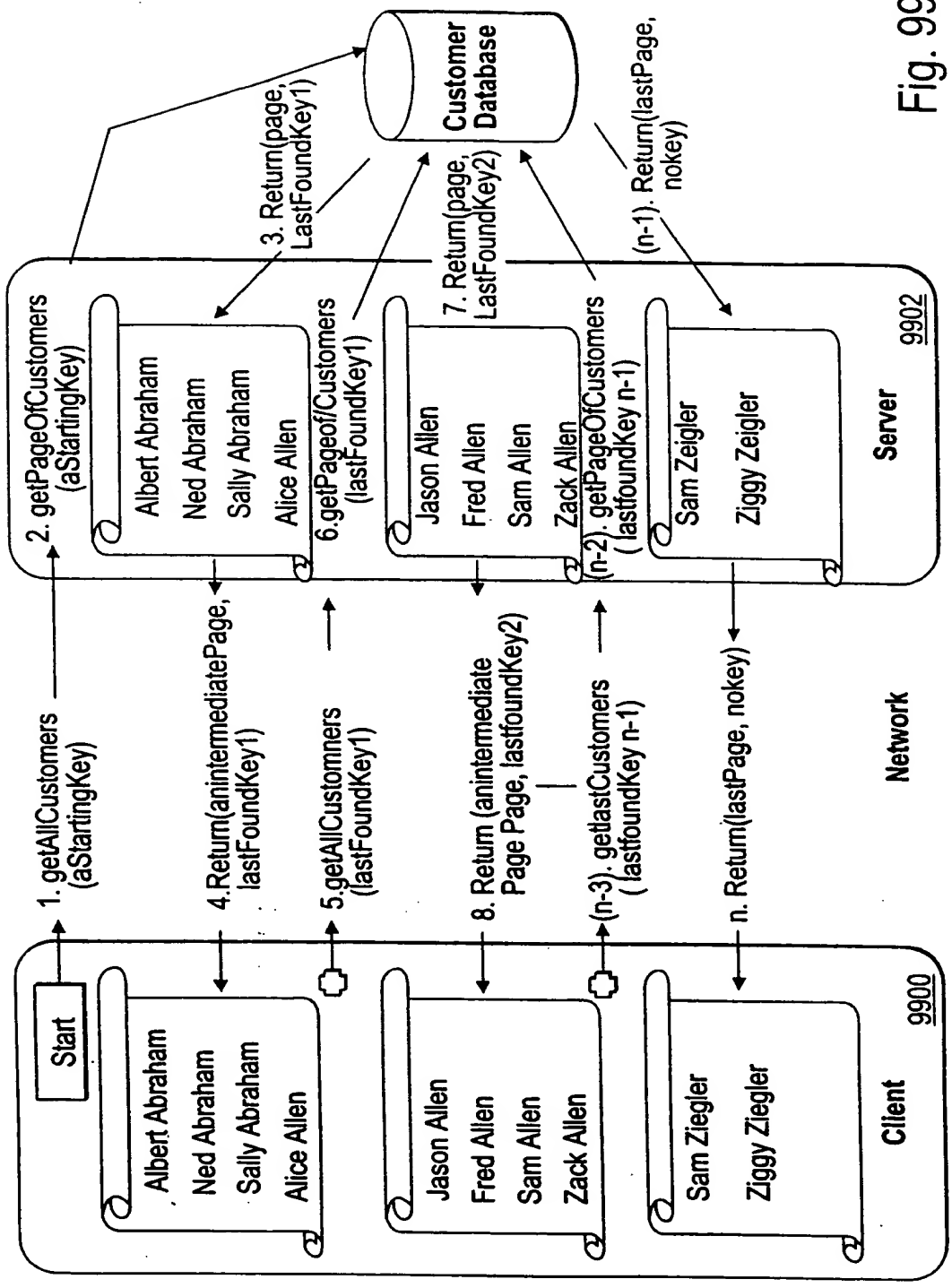
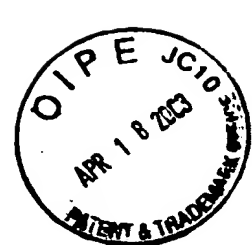


Fig. 99



10000

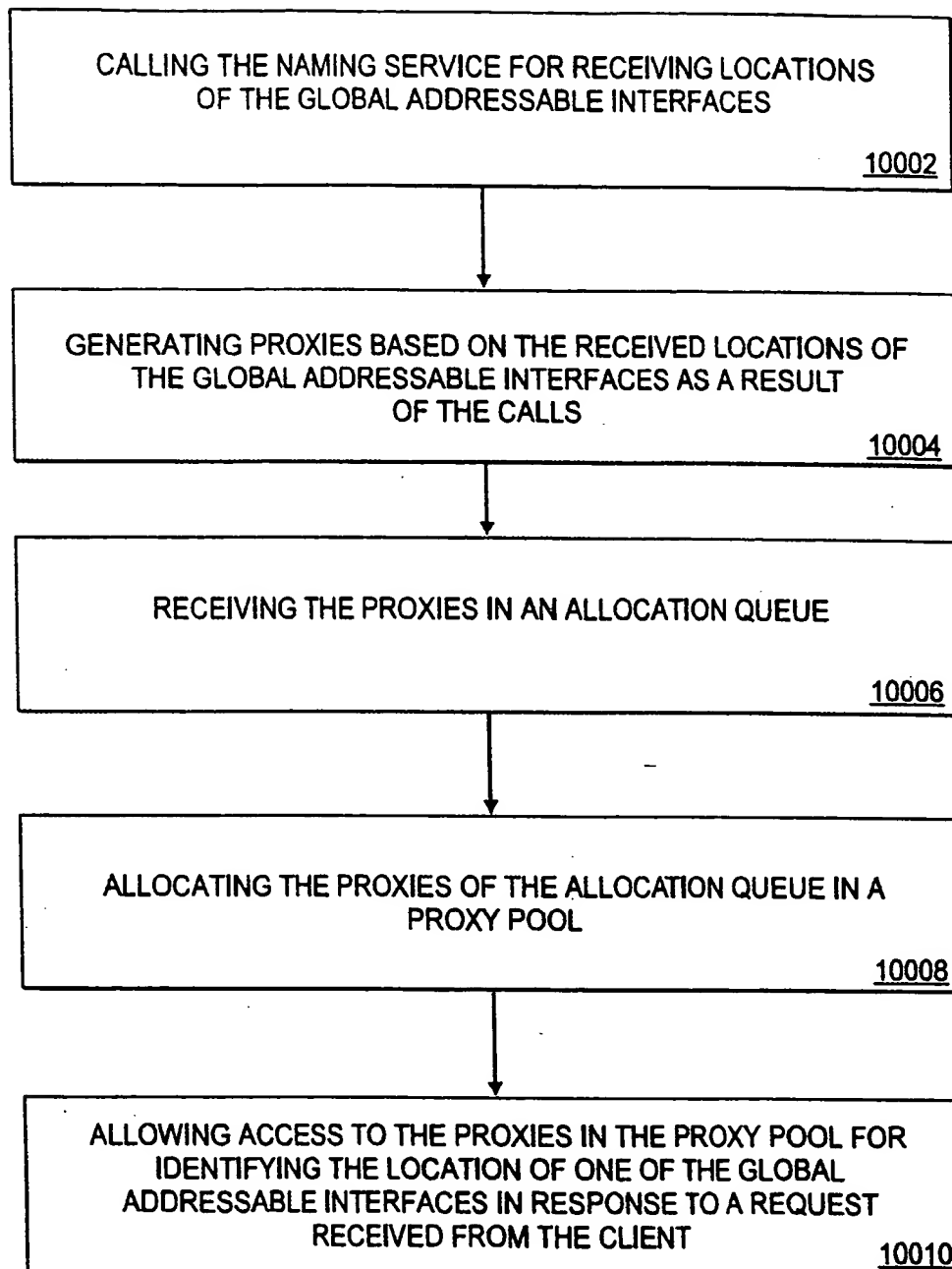


Fig. 100

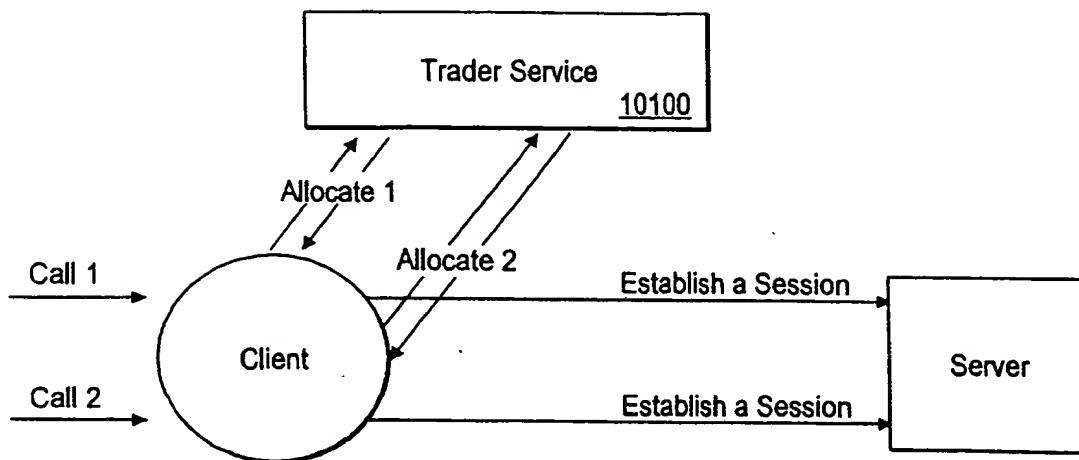
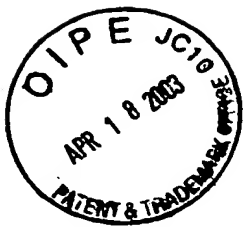


Fig. 101

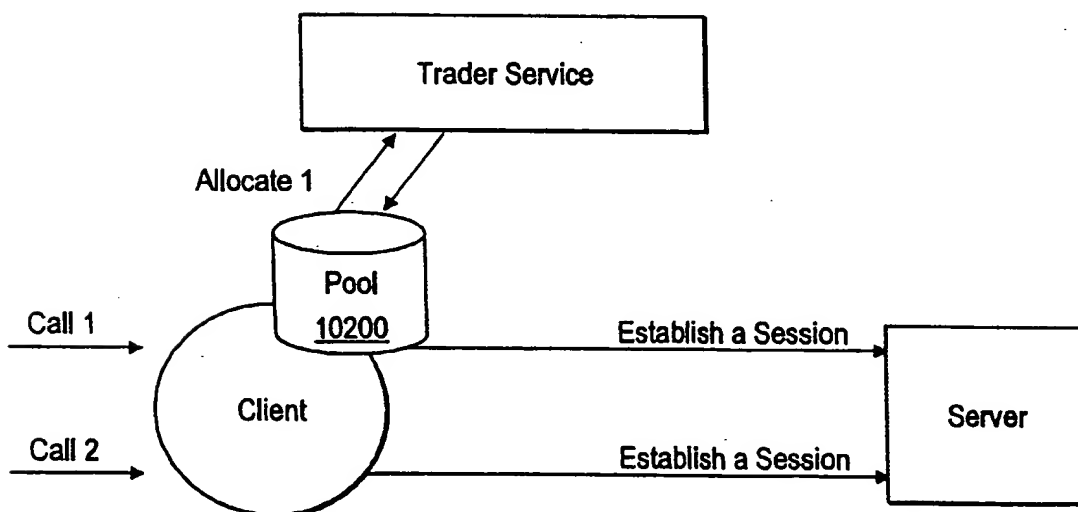


Fig. 102

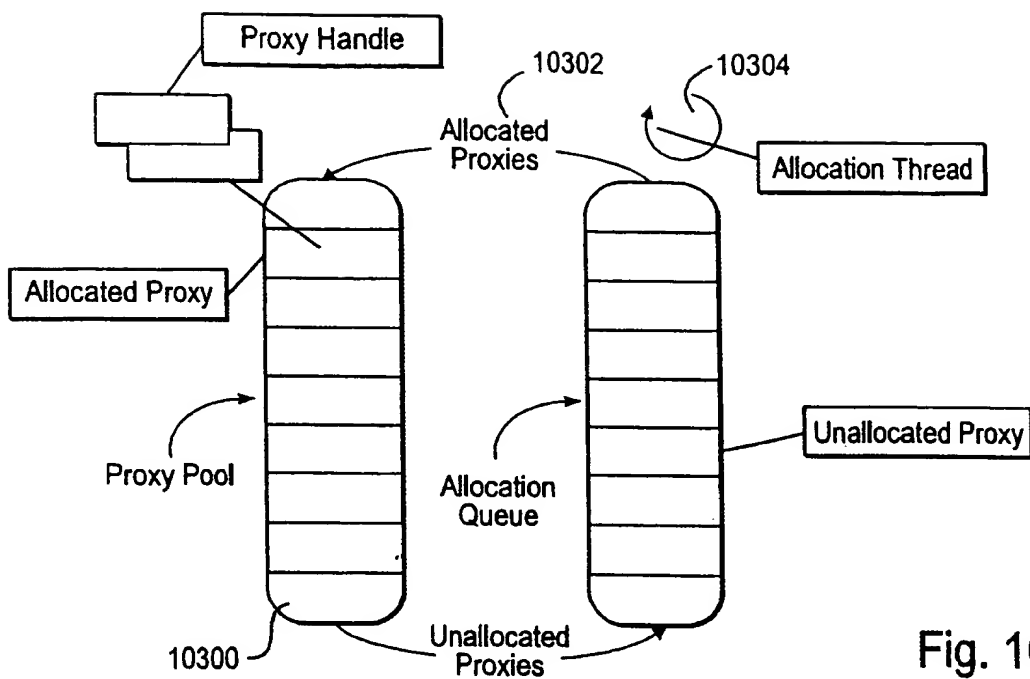


Fig. 103

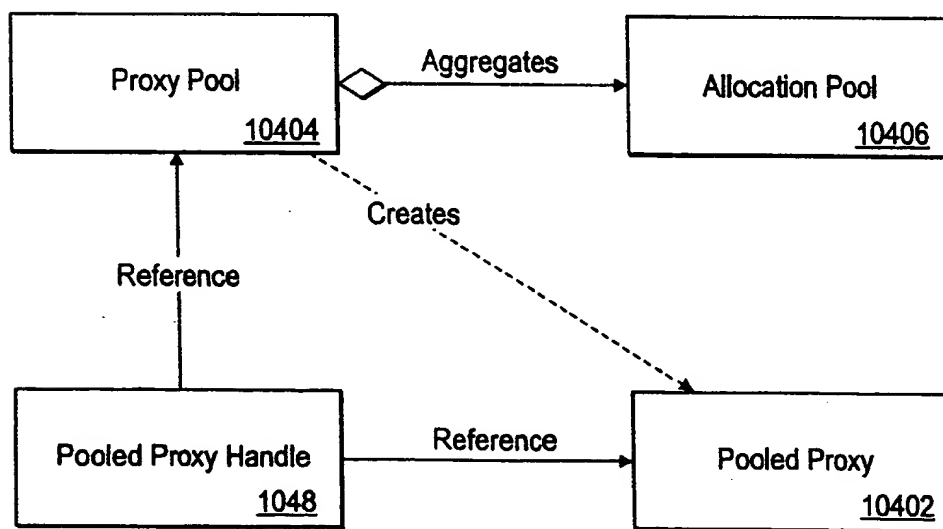
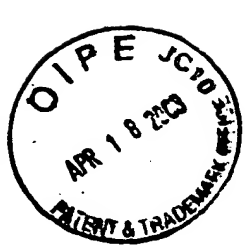


Fig. 104





10500

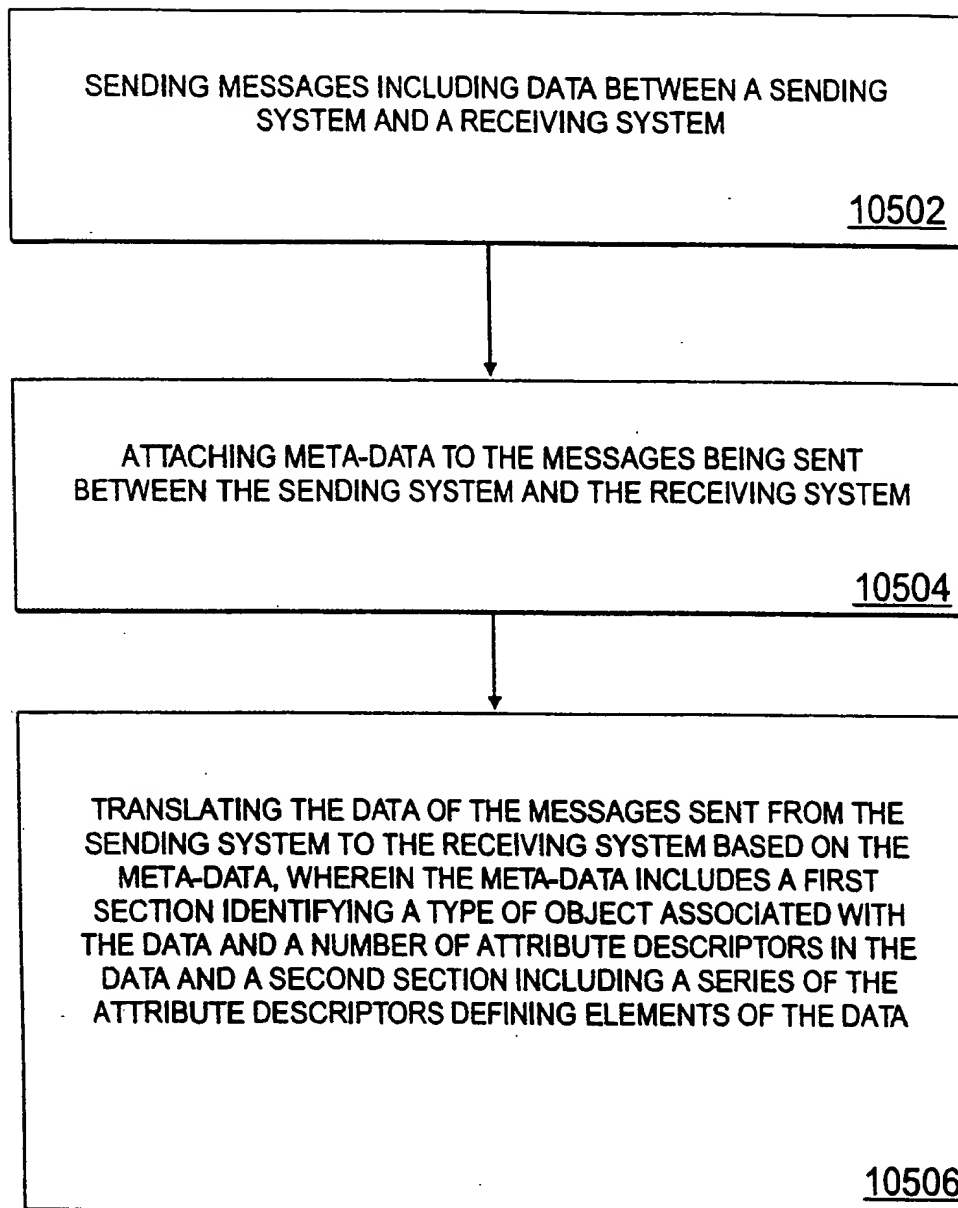


Fig. 105

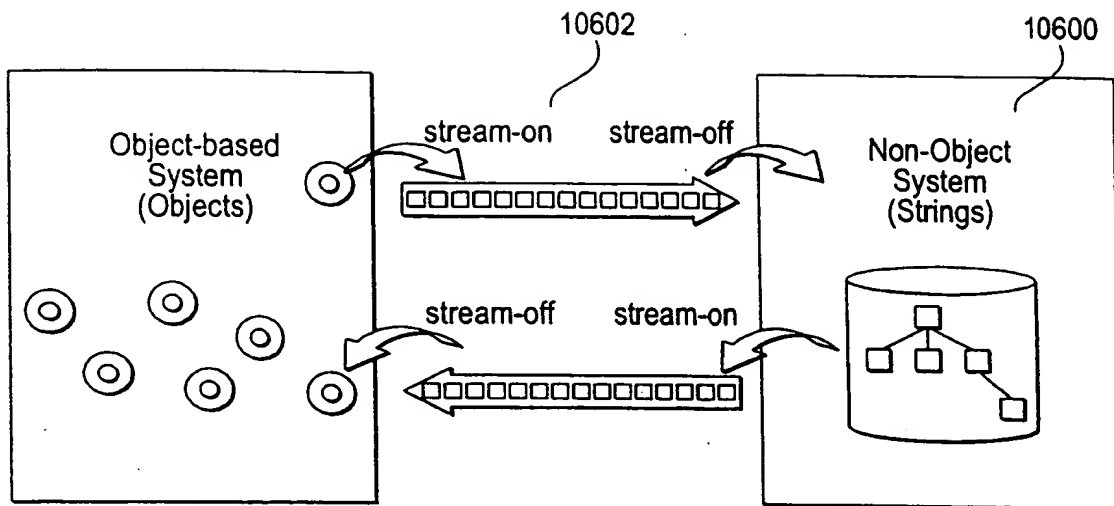


Fig. 106

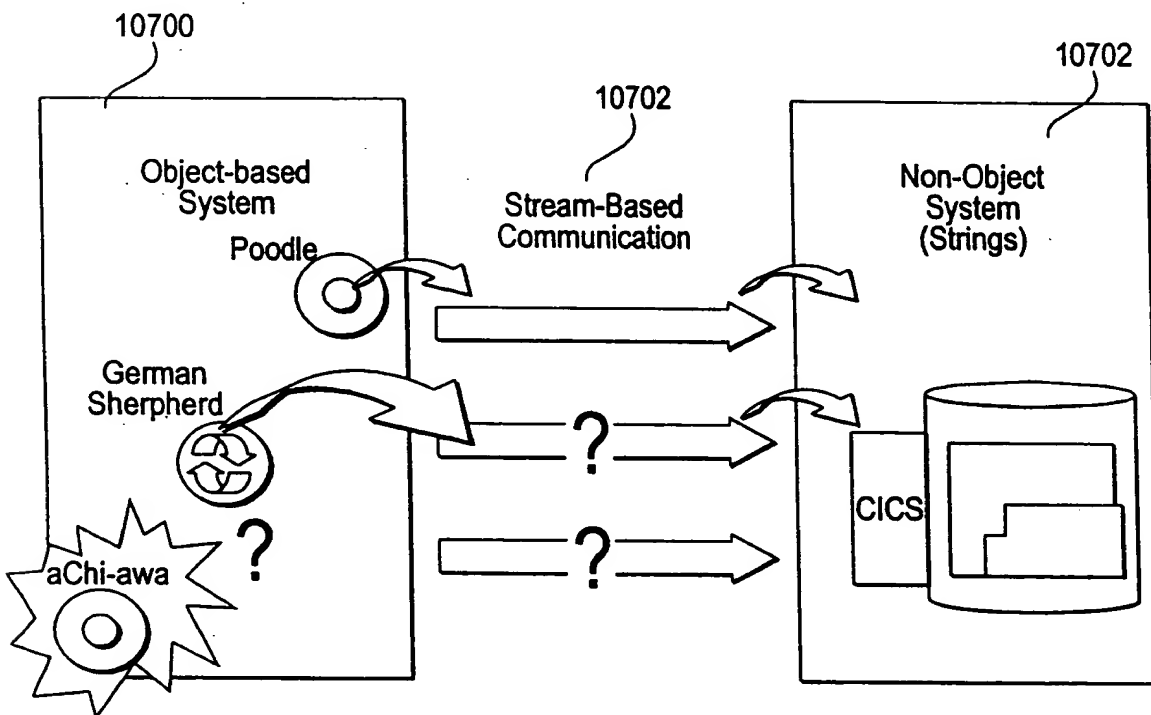


Fig. 107

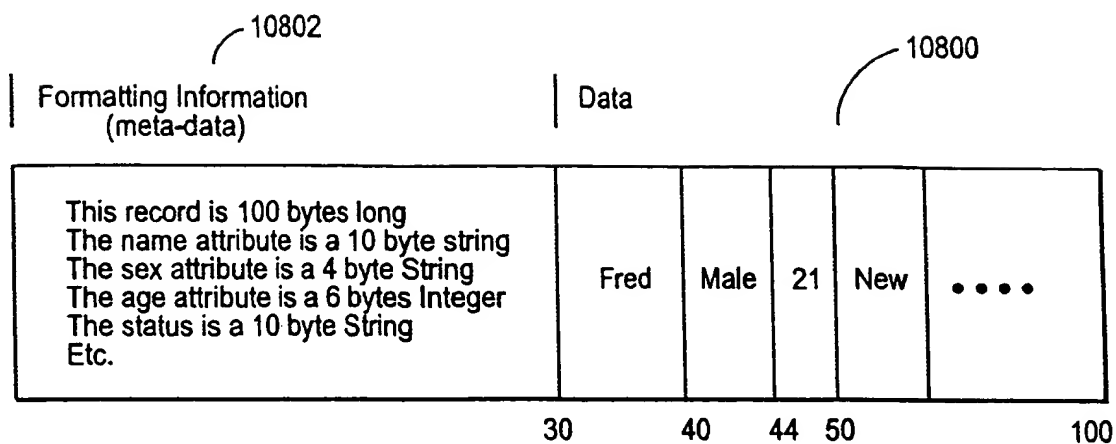
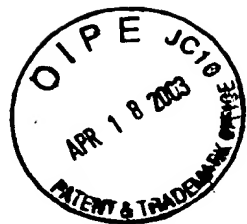


Fig. 108

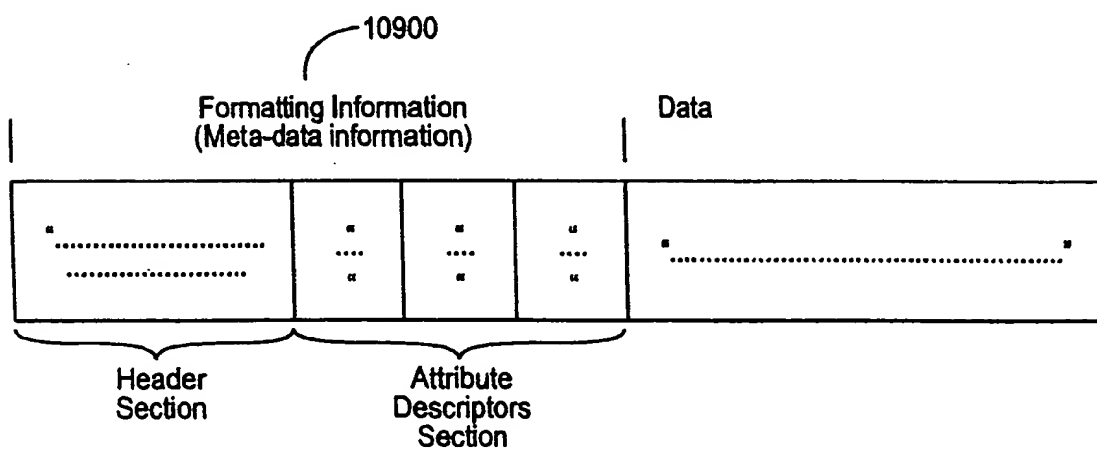


Fig. 109

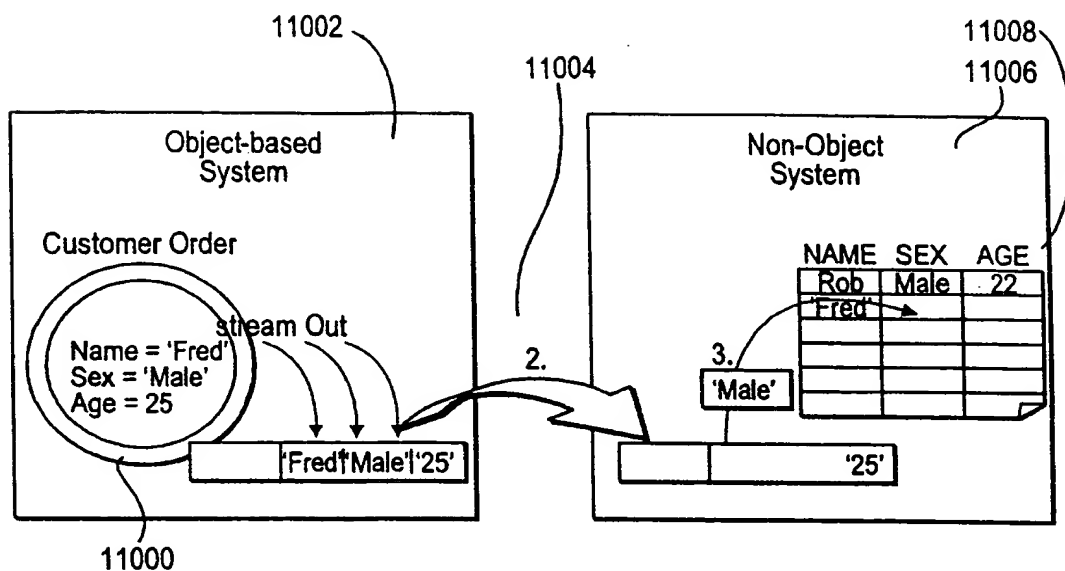


Fig. 110

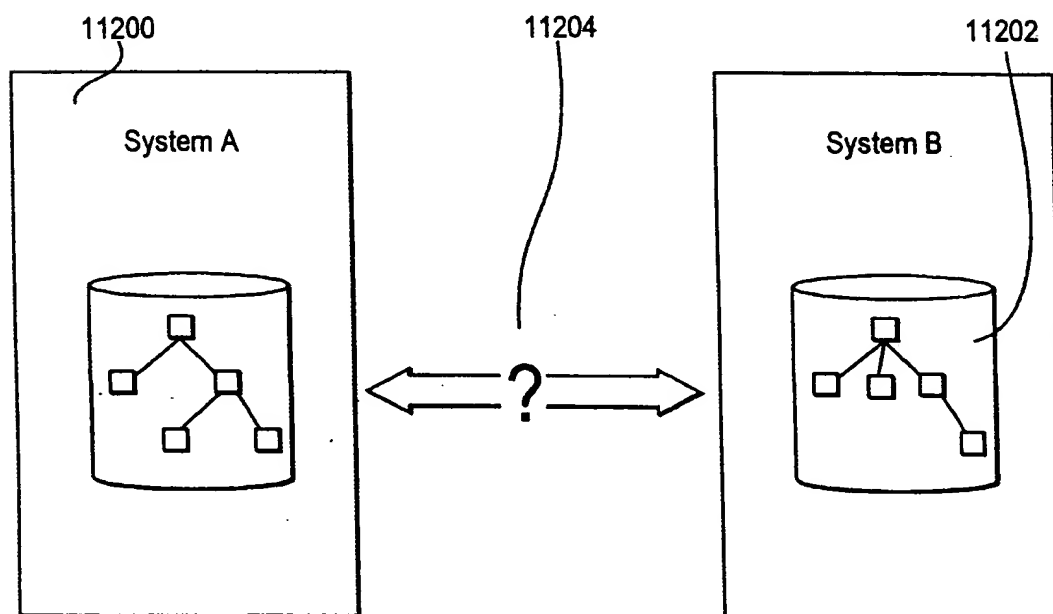
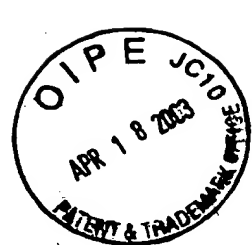


Fig. 112



11100

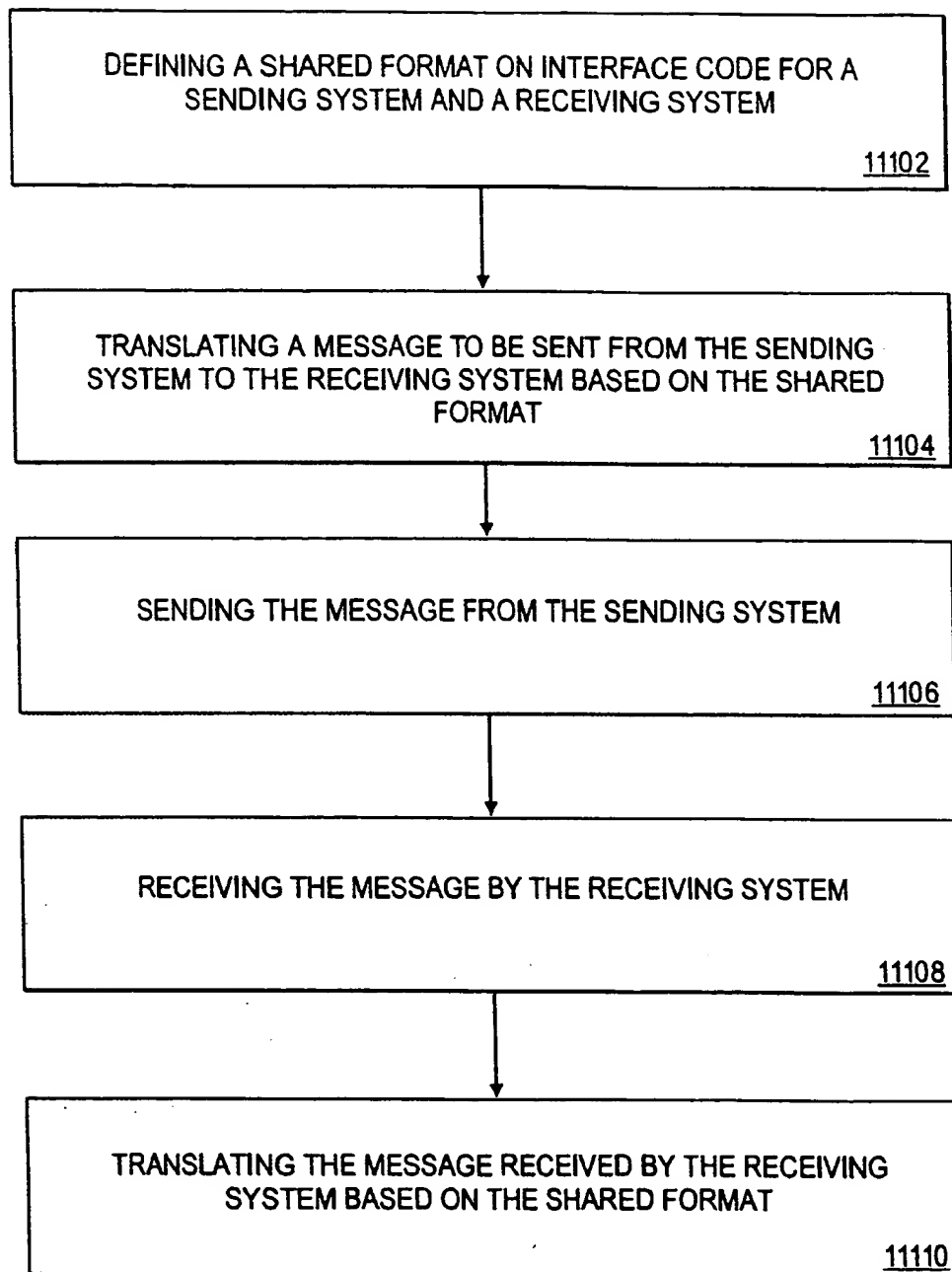


Fig. 111

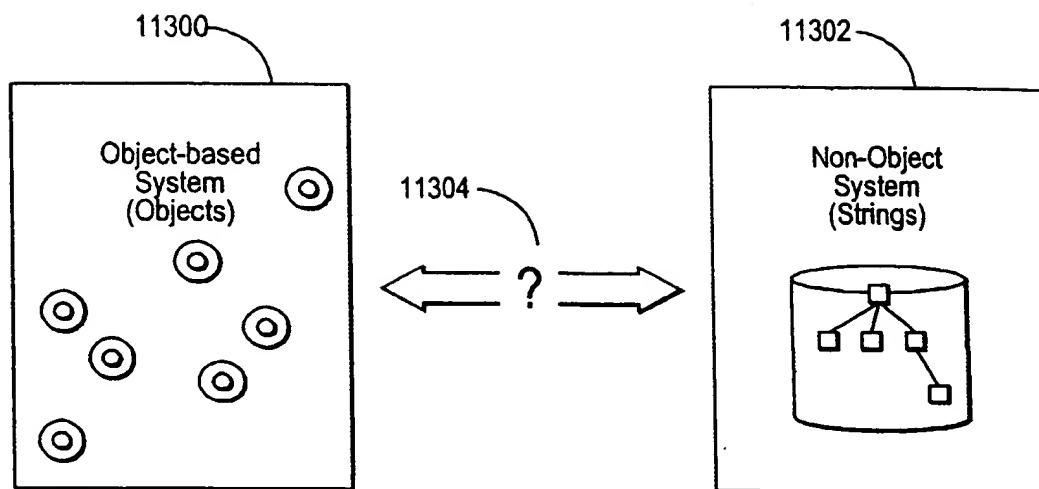


Fig. 113

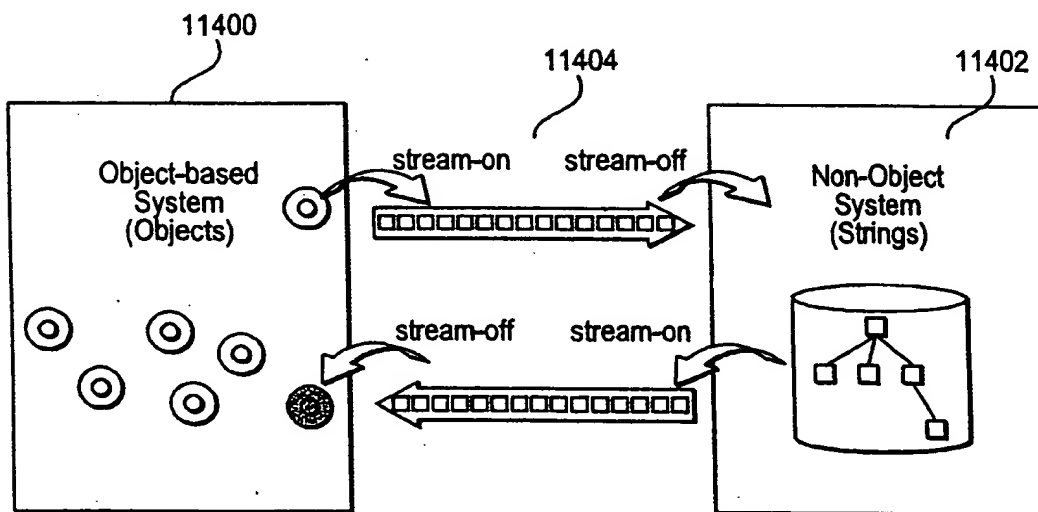


Fig. 114

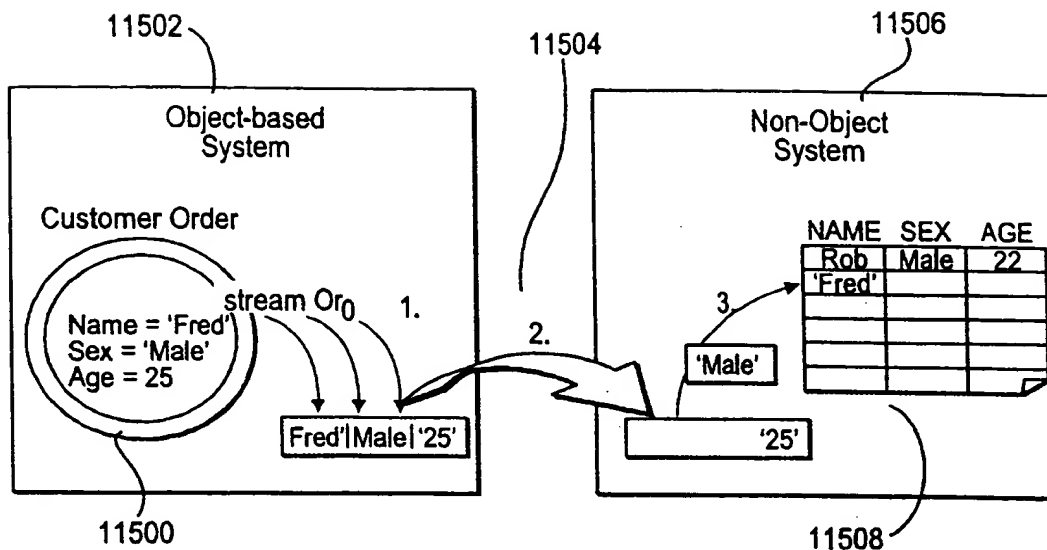


Fig. 115

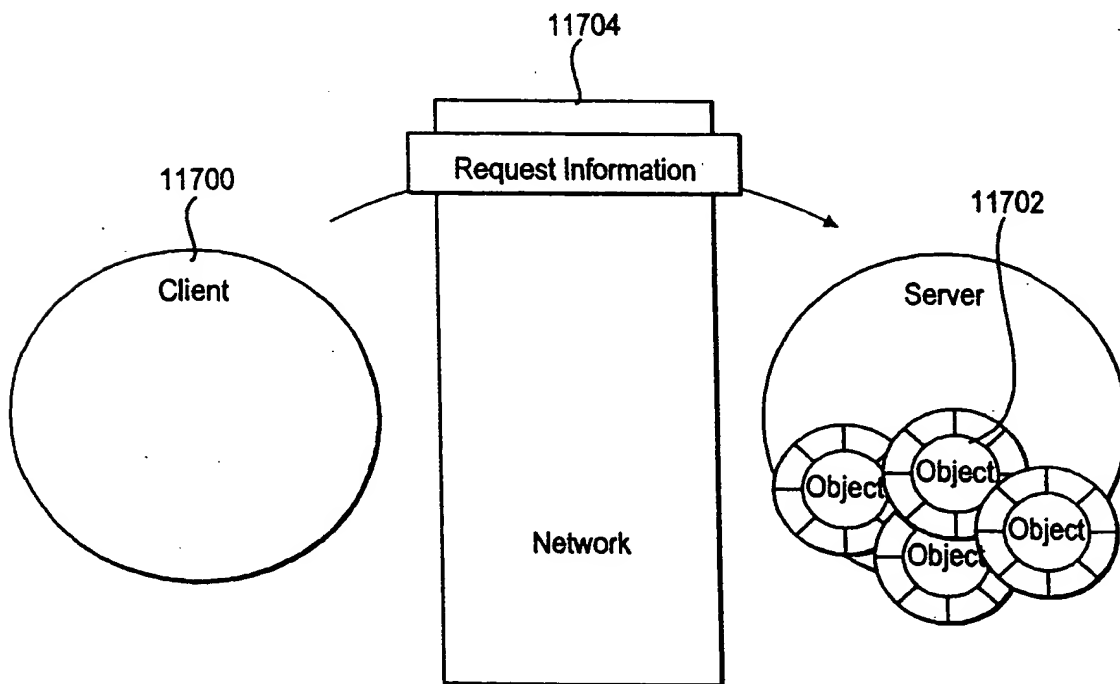
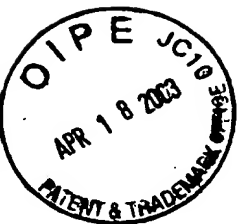


Fig. 117



11600

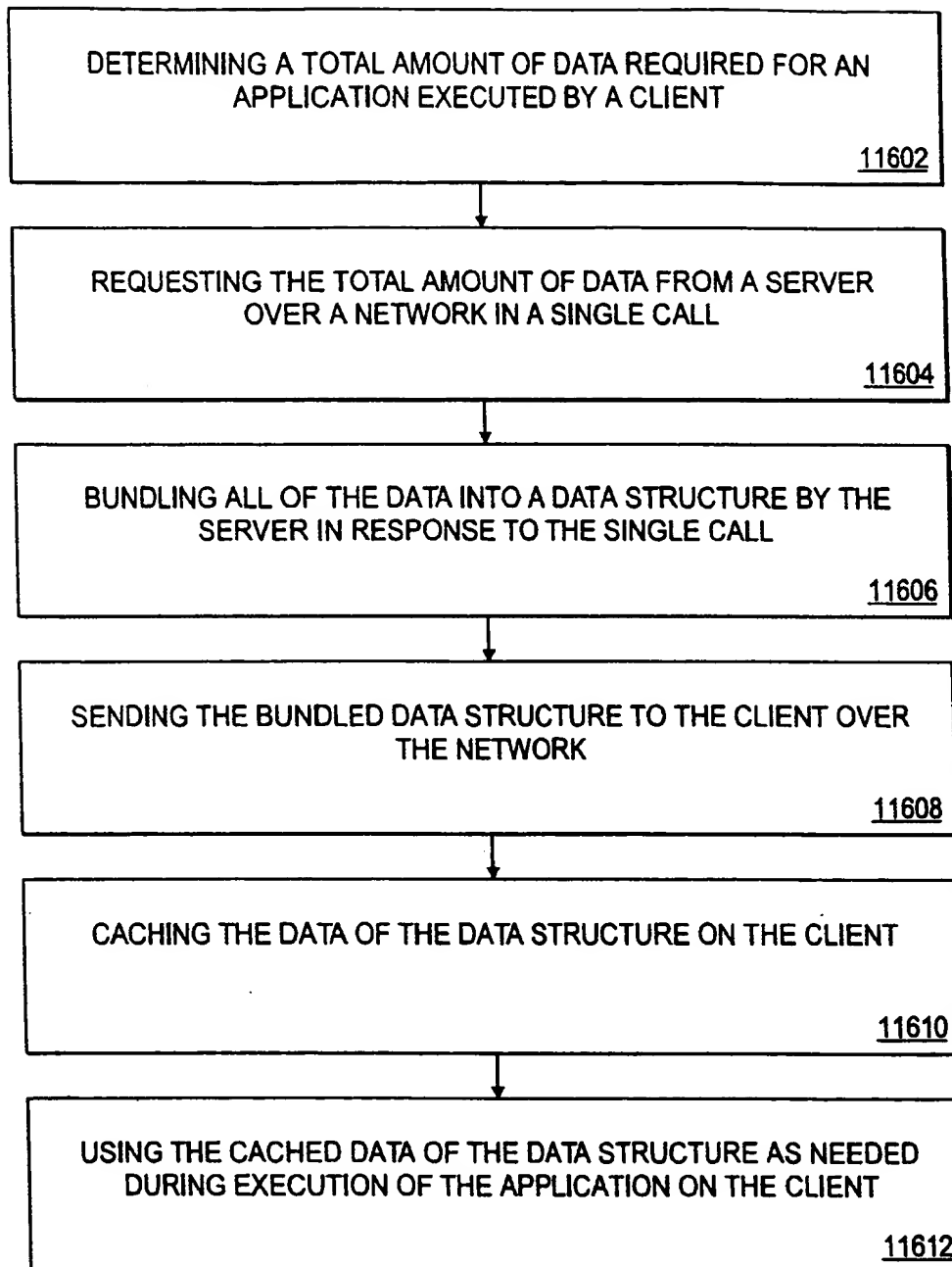


Fig. 116



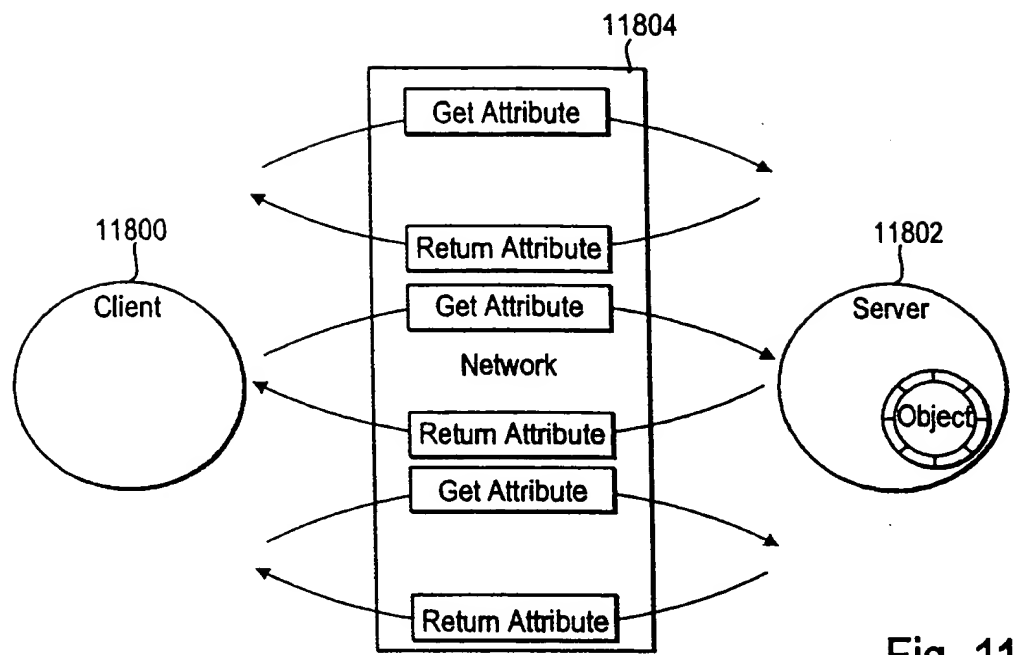


Fig. 118

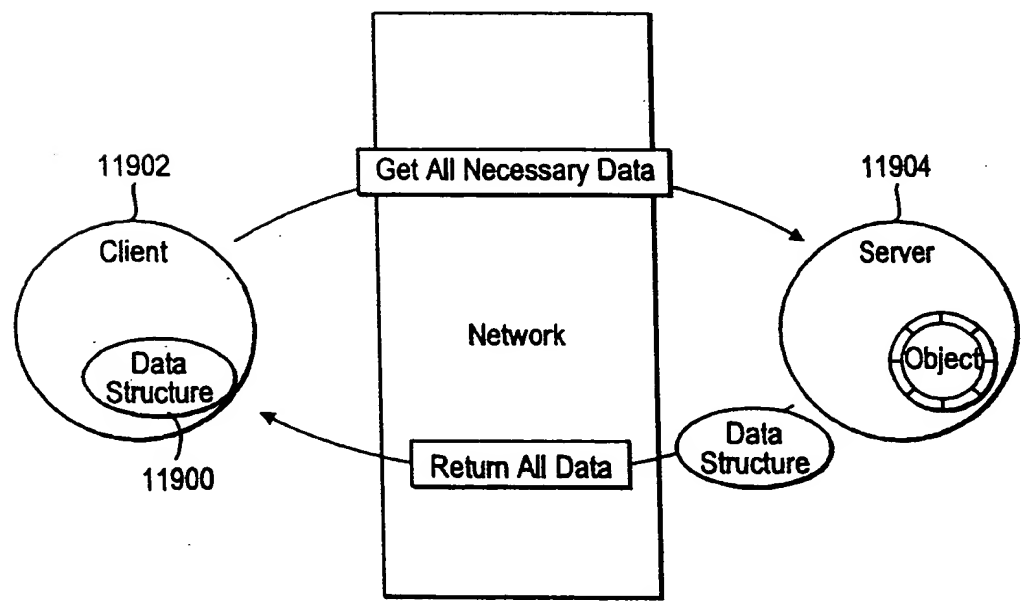


Fig. 119

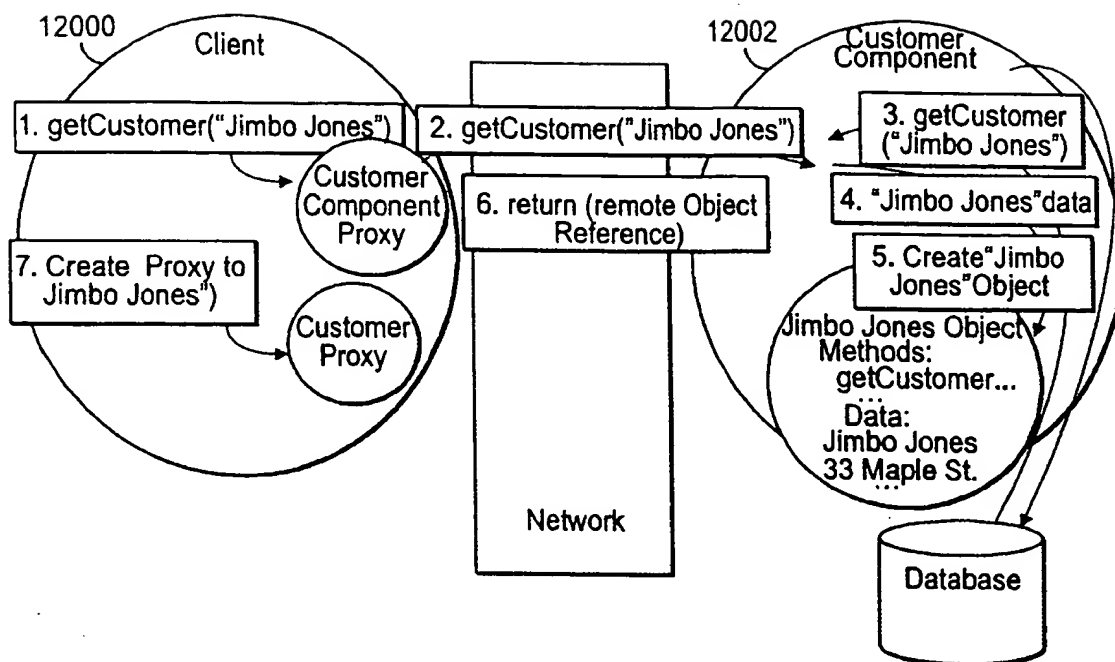
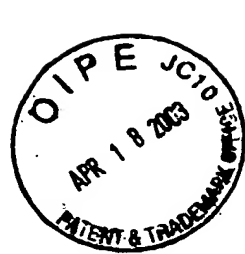


Fig. 120

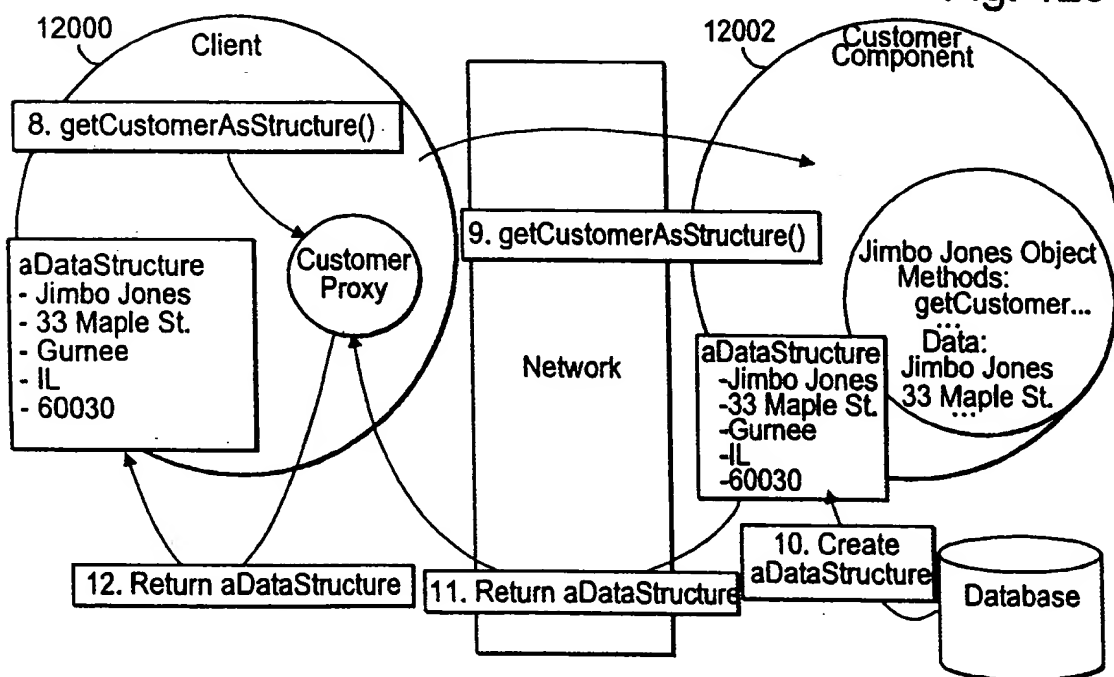


Fig. 121

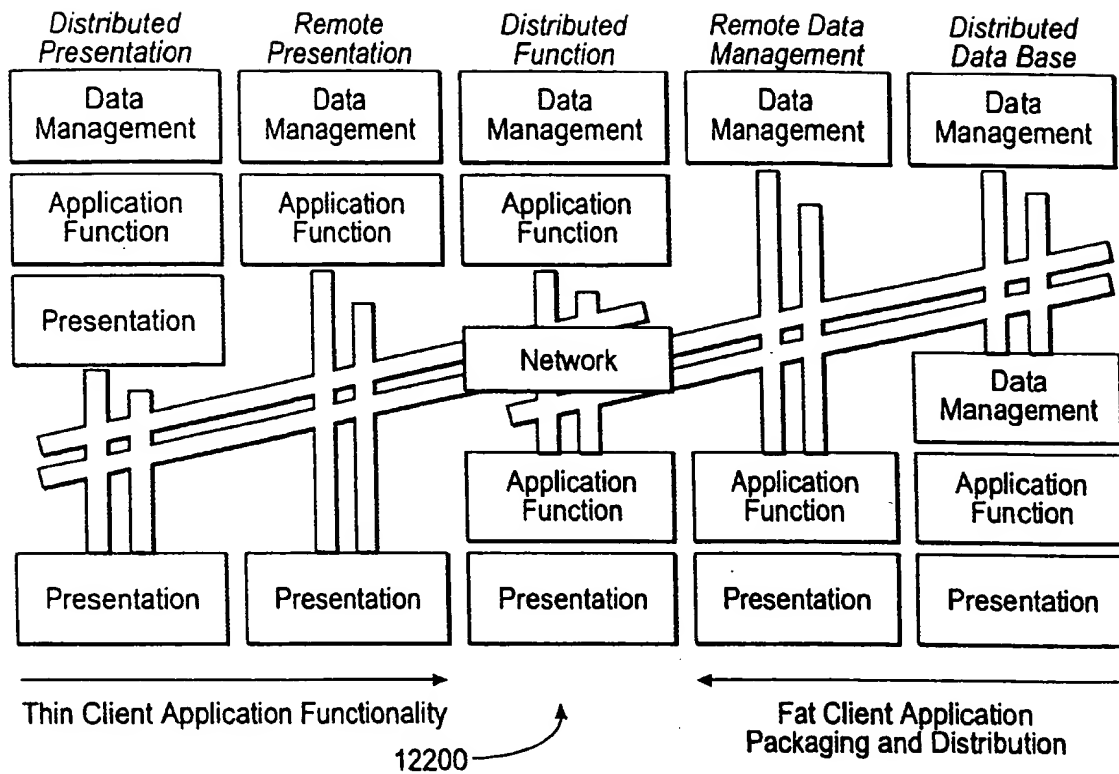
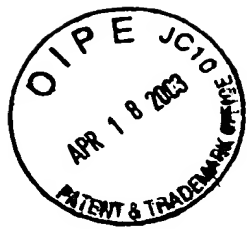


Fig. 122

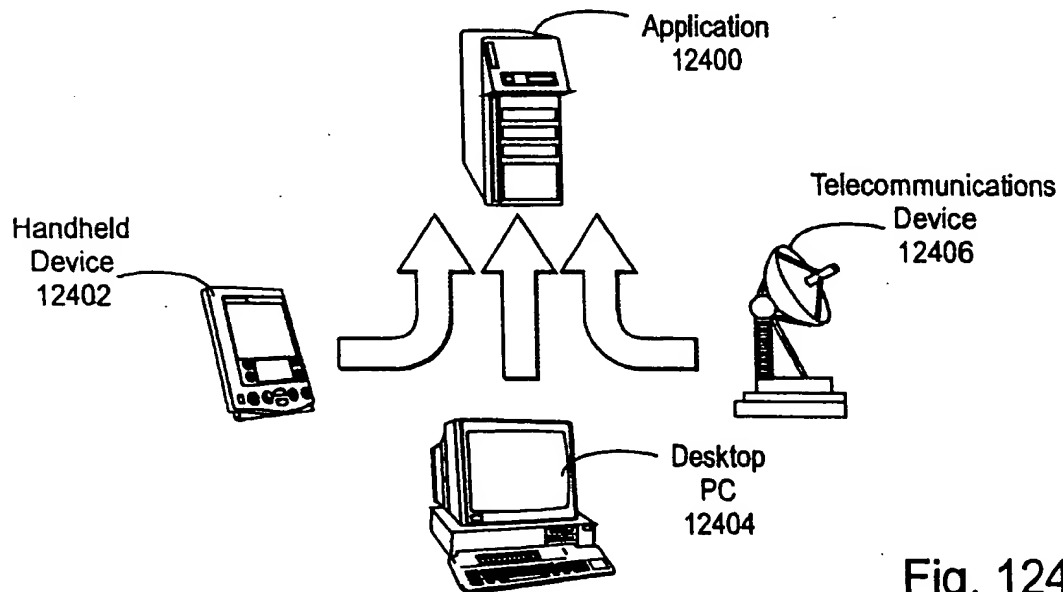
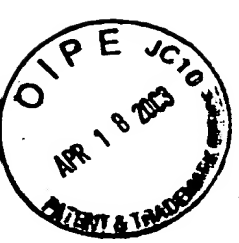


Fig. 124



12300

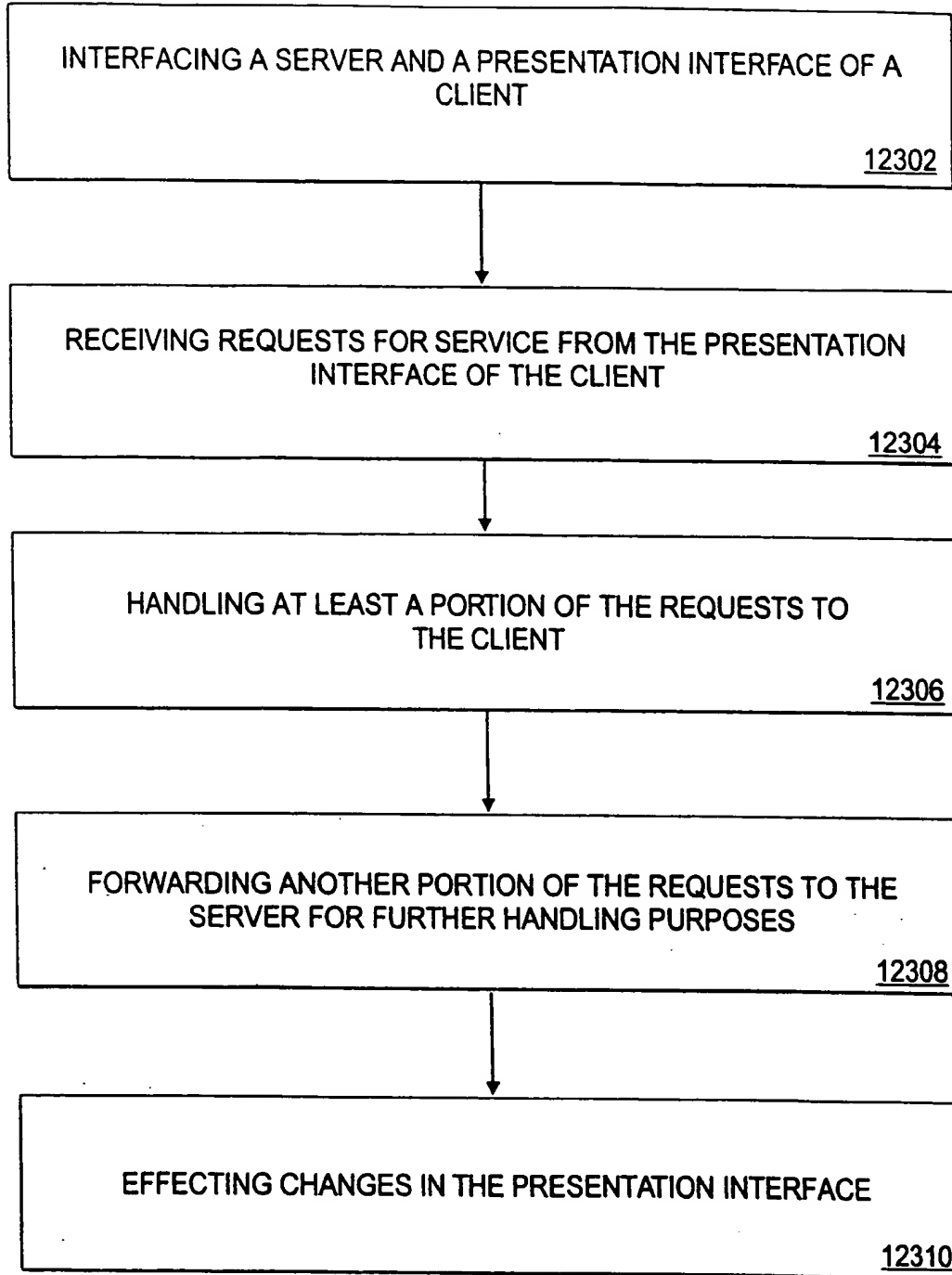


Fig. 123

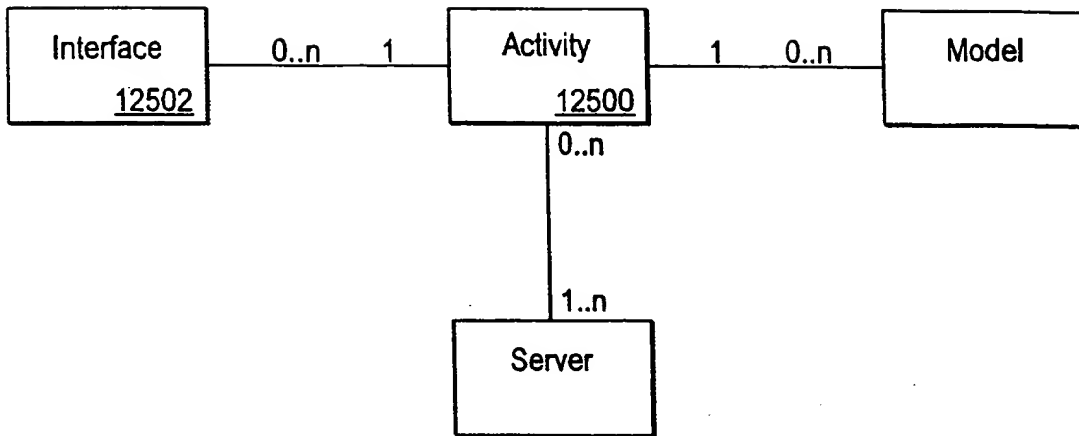


Fig. 125

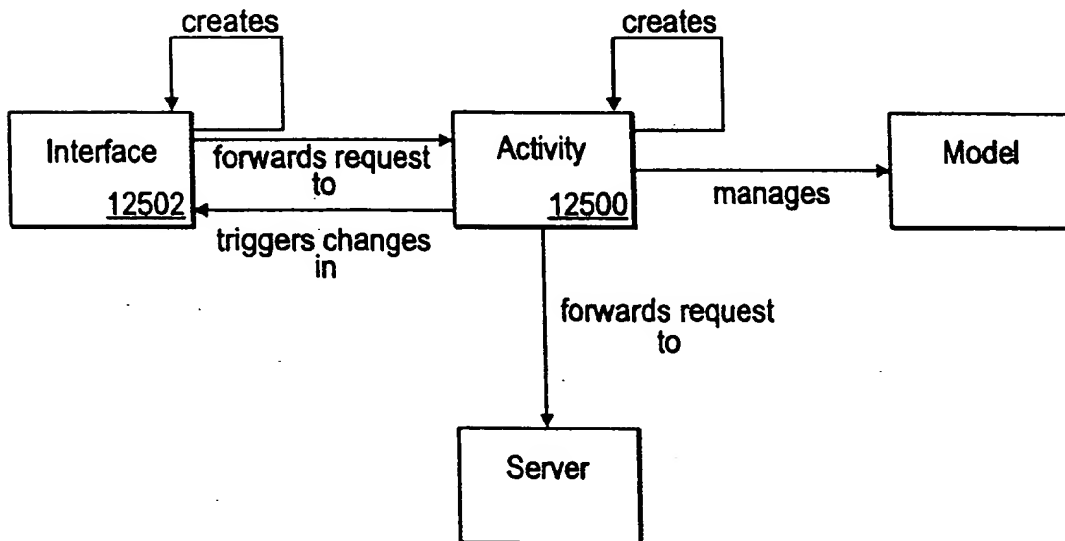


Fig. 126

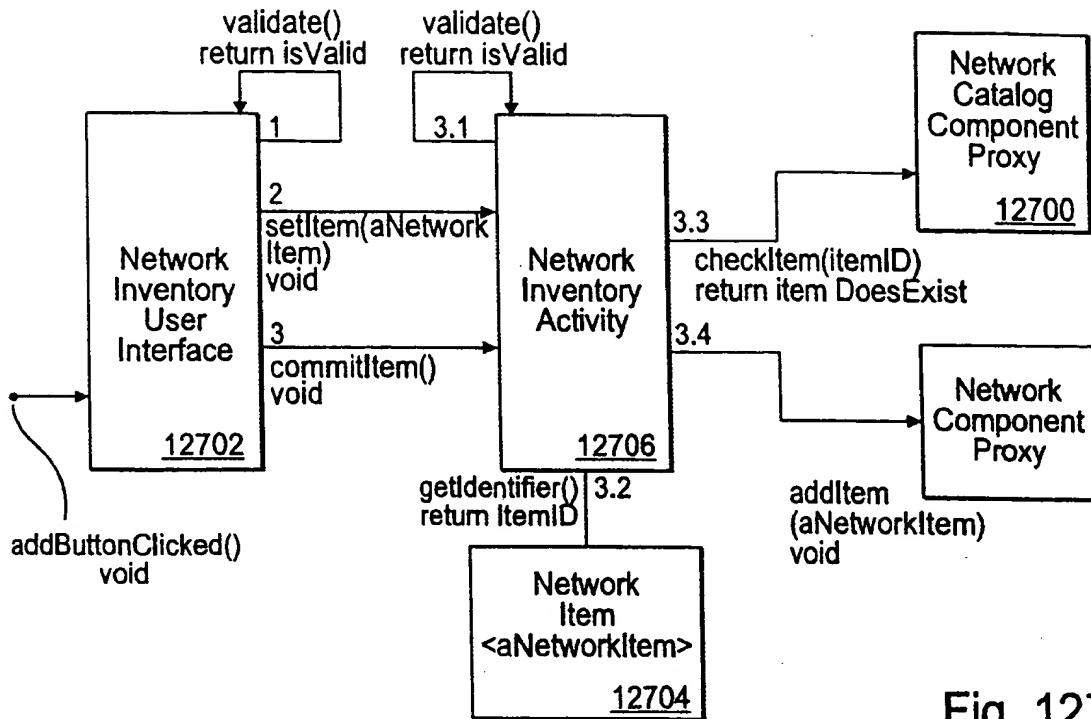


Fig. 127

The **Data Entry** form (12900) contains the following fields and controls:

- Name:** A text input field with a dropdown arrow. An annotation points to it: "unconstrained, needs format validation".
- SSN:** A text input field with a dropdown arrow. An annotation points to it: "unconstrained, needs format validation".
- Type:** A text input field with a dropdown arrow. An annotation points to it: "unconstrained, needs format validation".
- Status:** A group box containing two radio buttons: ☒ **Active** and ☒ **Inactive**. An annotation points to this group: "constrained, doesn't need format validation".
- OK:** A button at the bottom right of the form.

Fig. 129

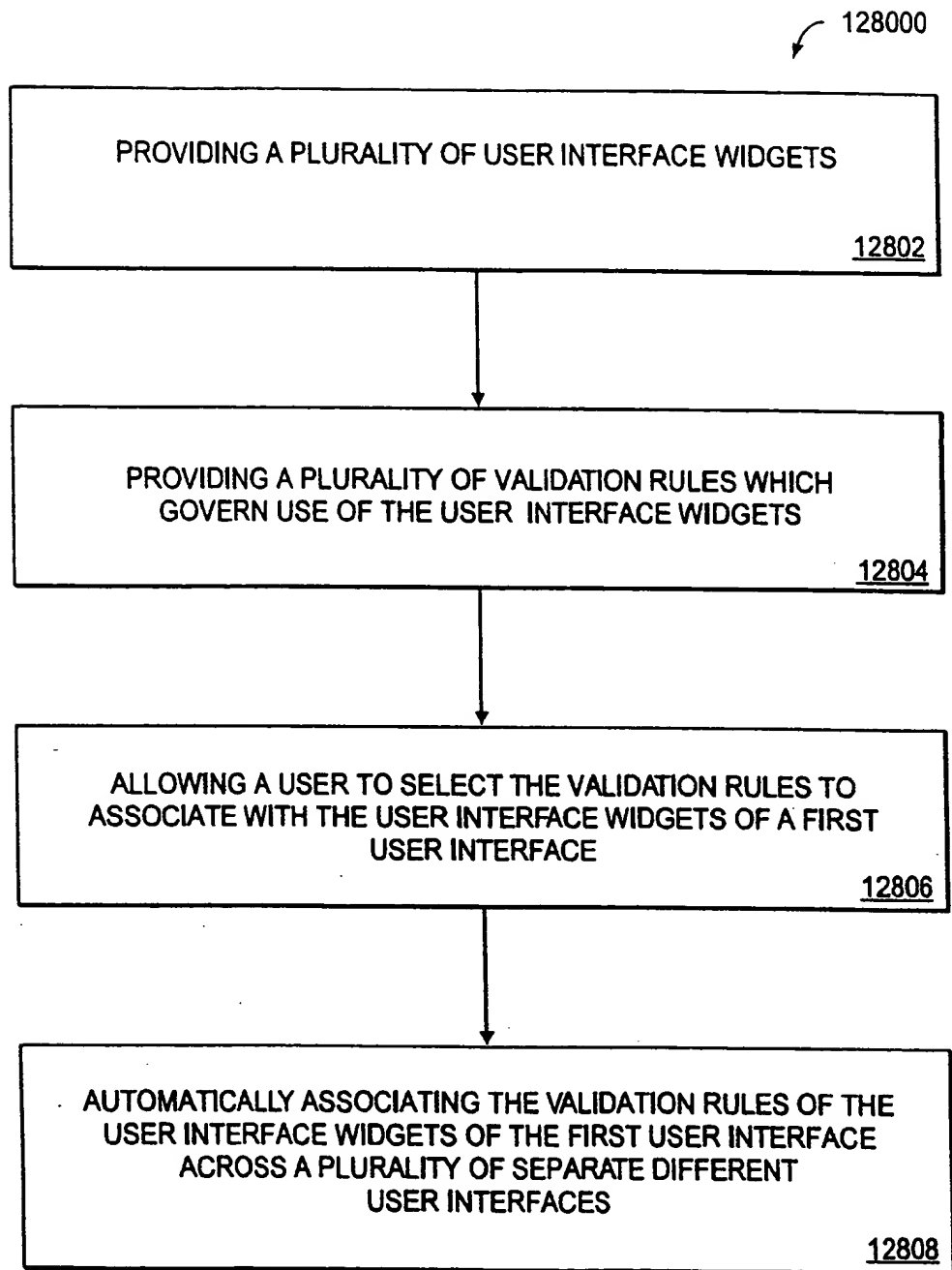


Fig. 128

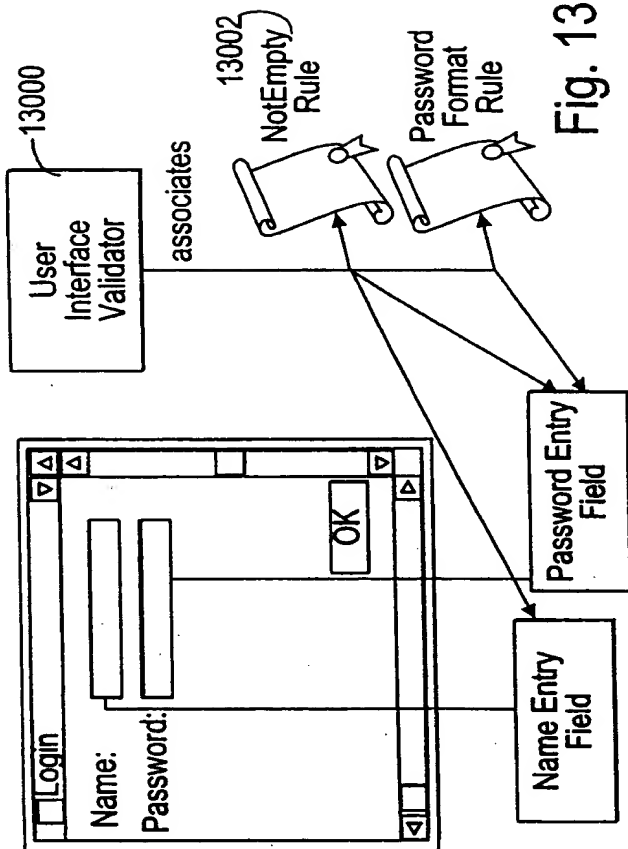


Fig. 130

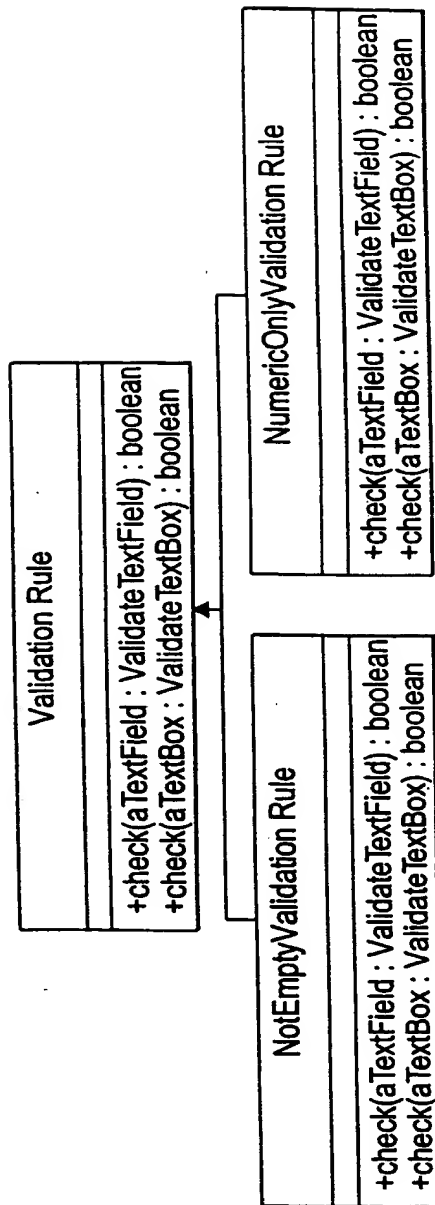


Fig. 131



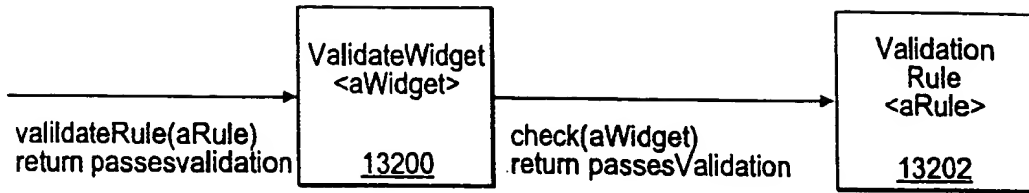


Fig. 132

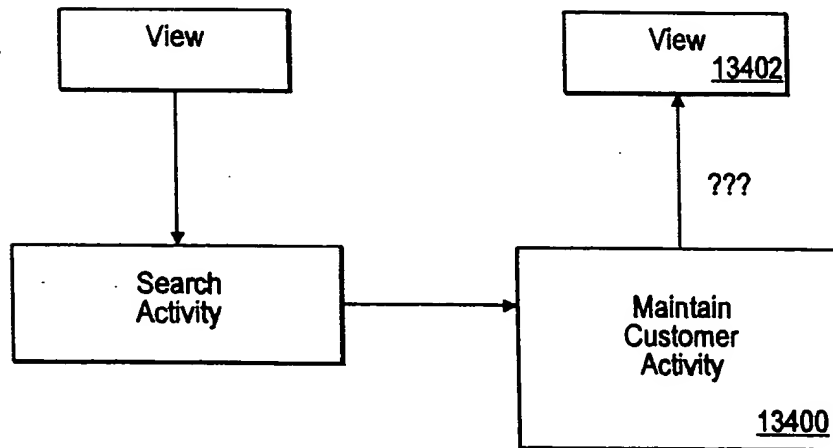
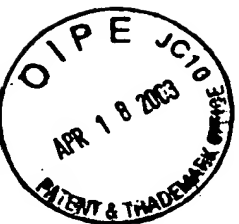


Fig. 134



13300

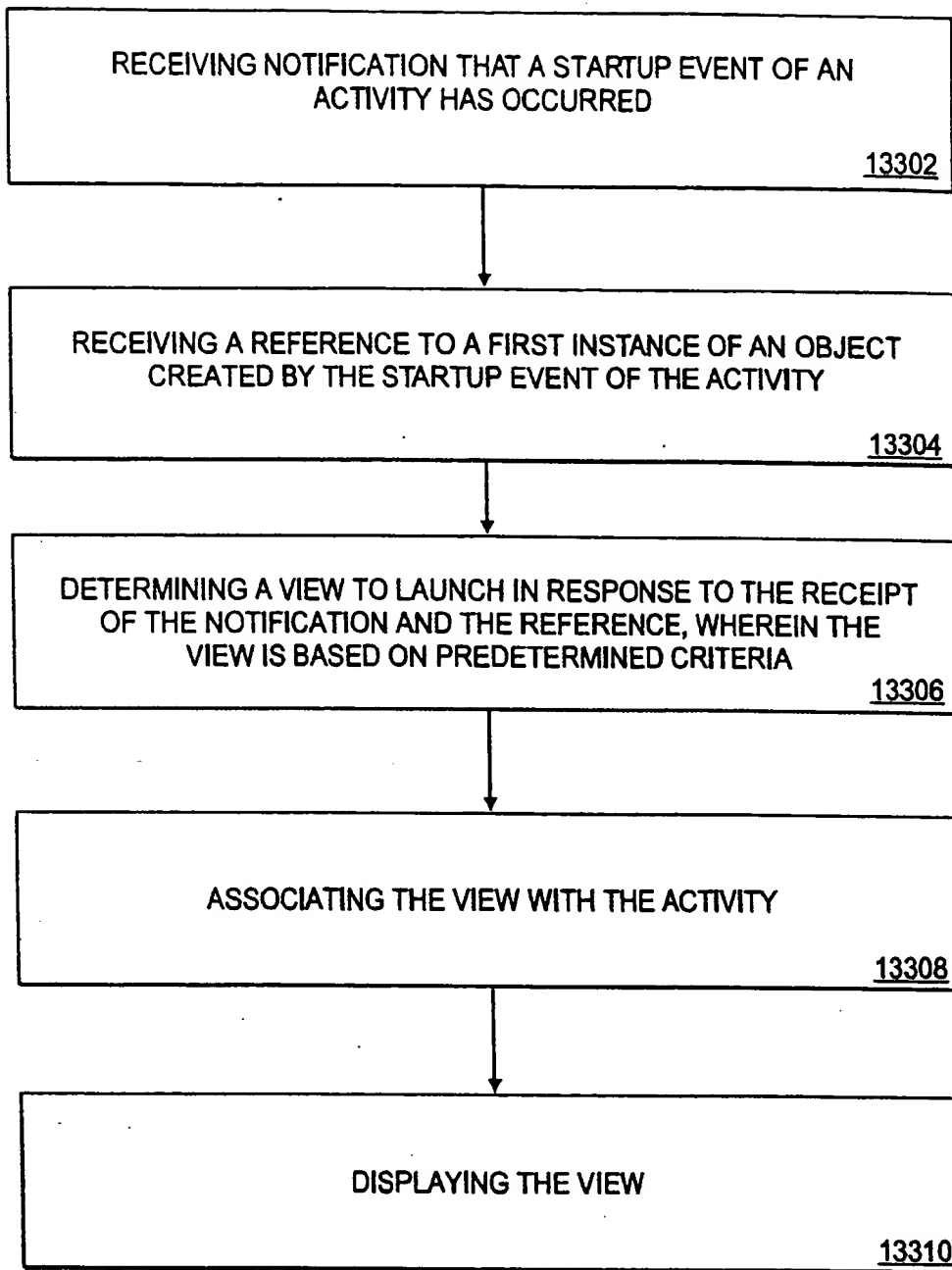


Fig. 133

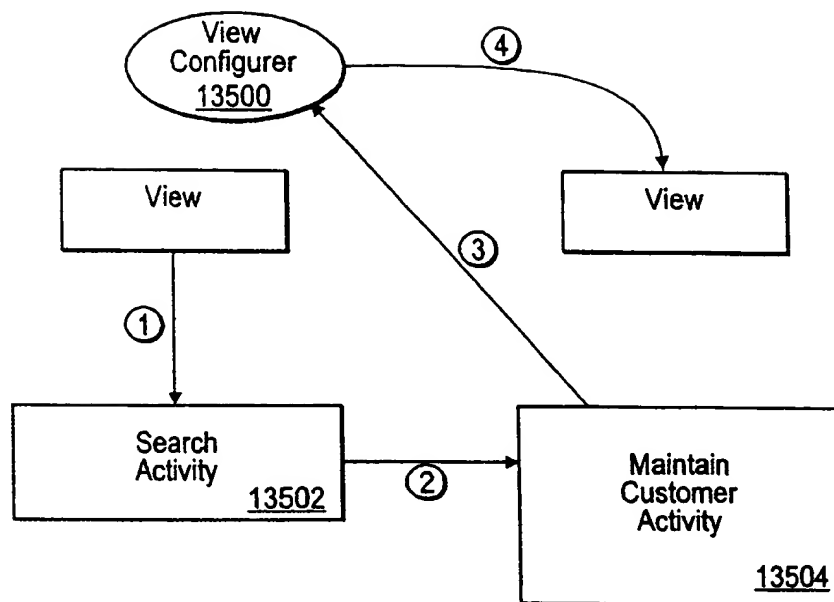


Fig. 135

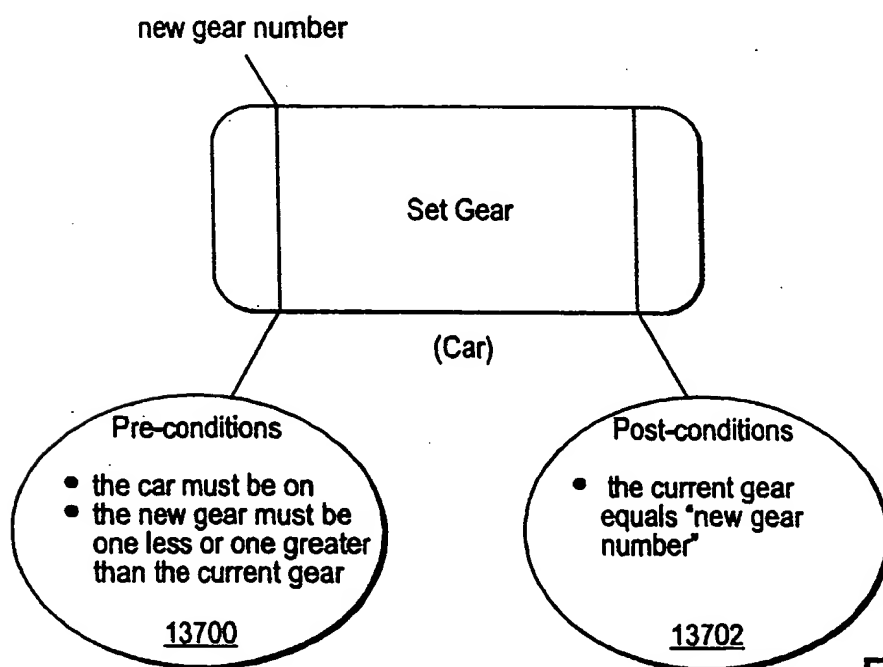


Fig. 137



13600

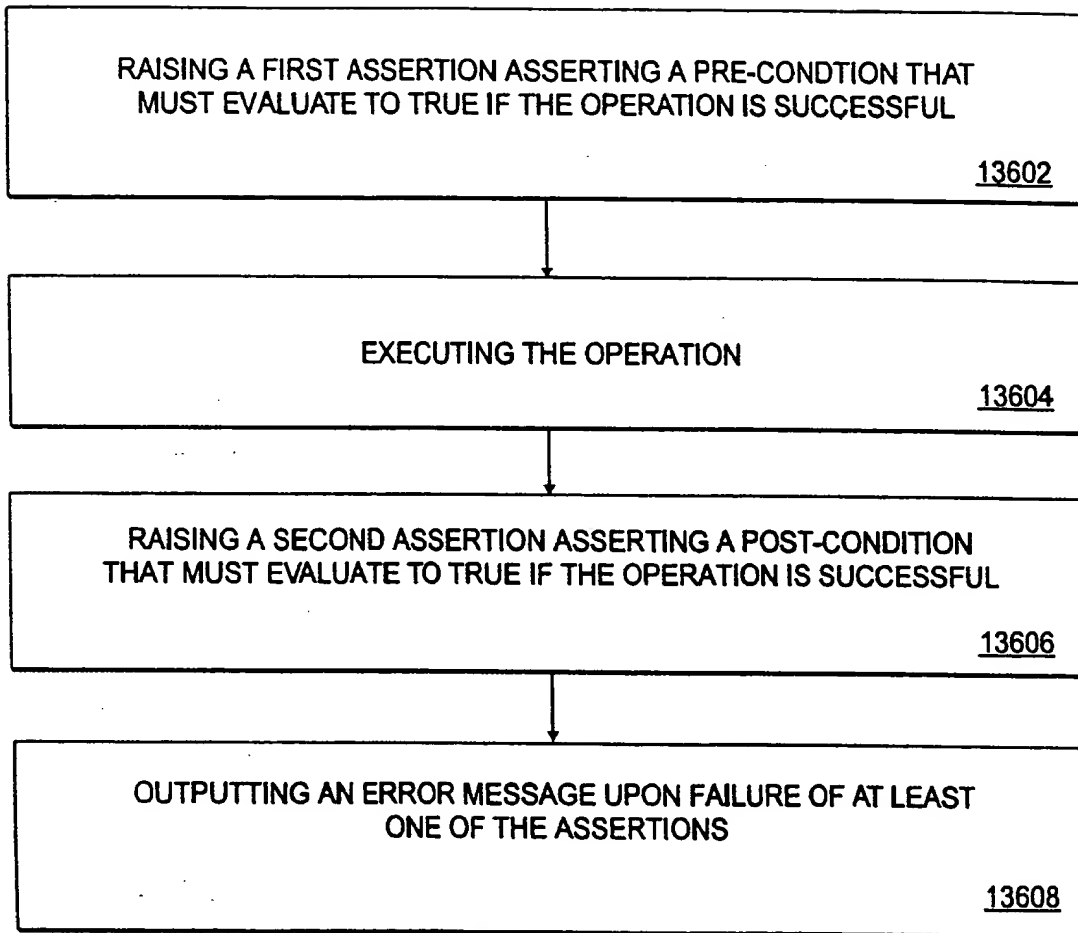


Fig. 136

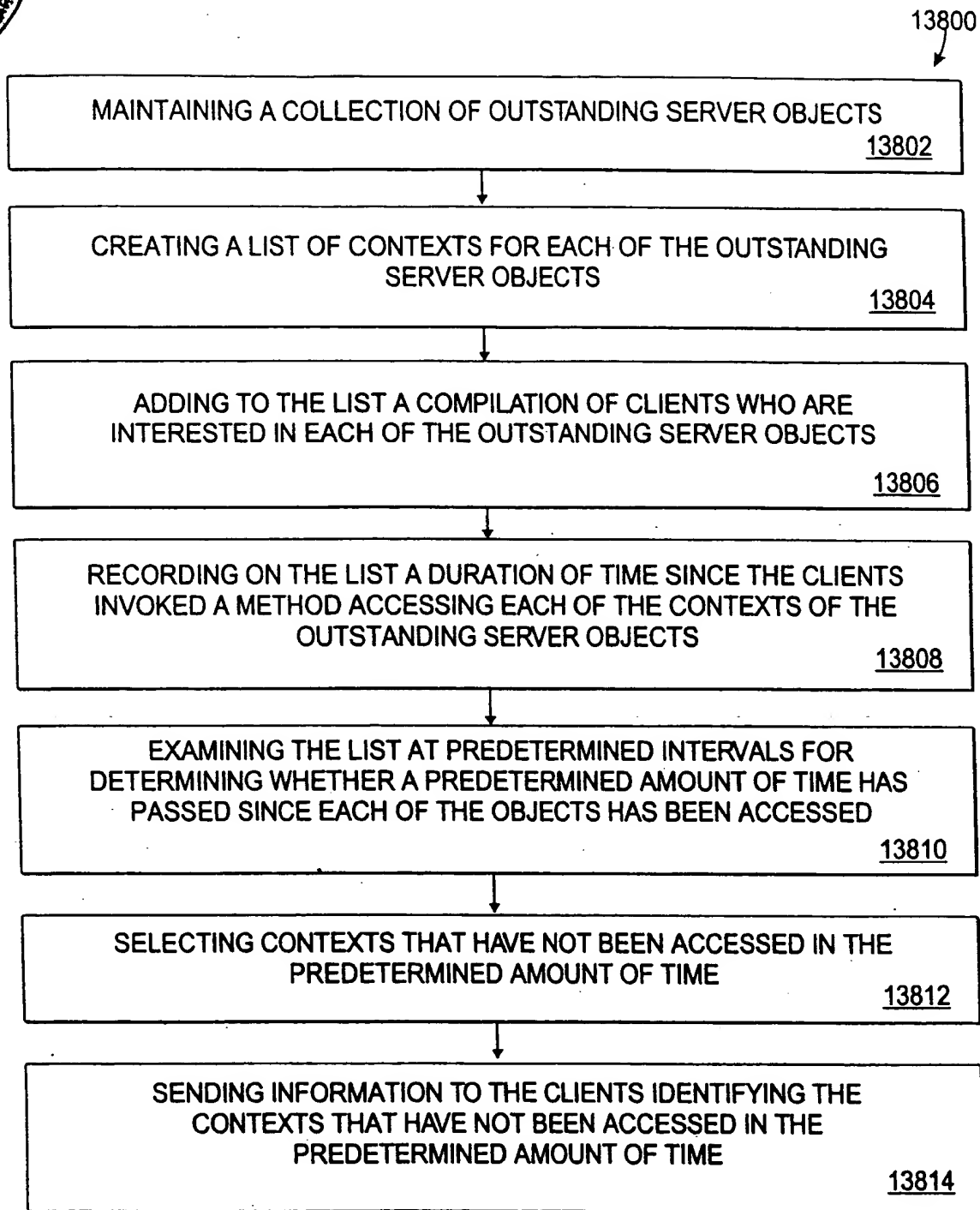
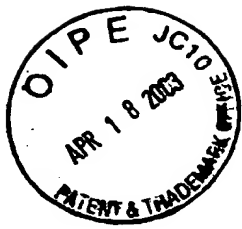


Fig. 138

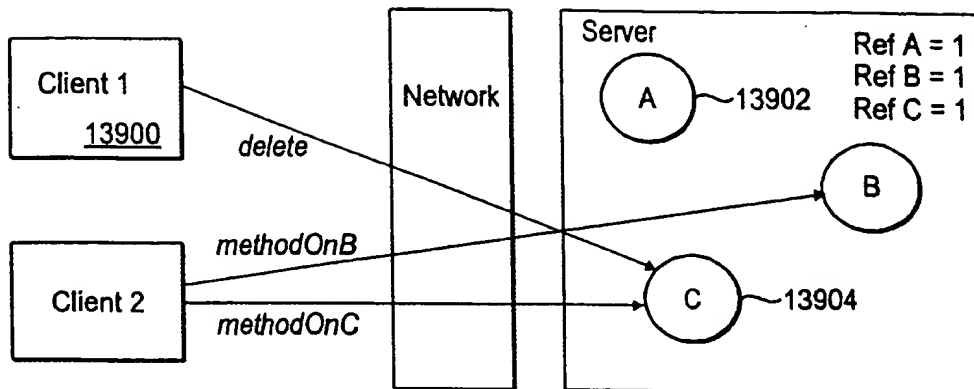


Fig. 139

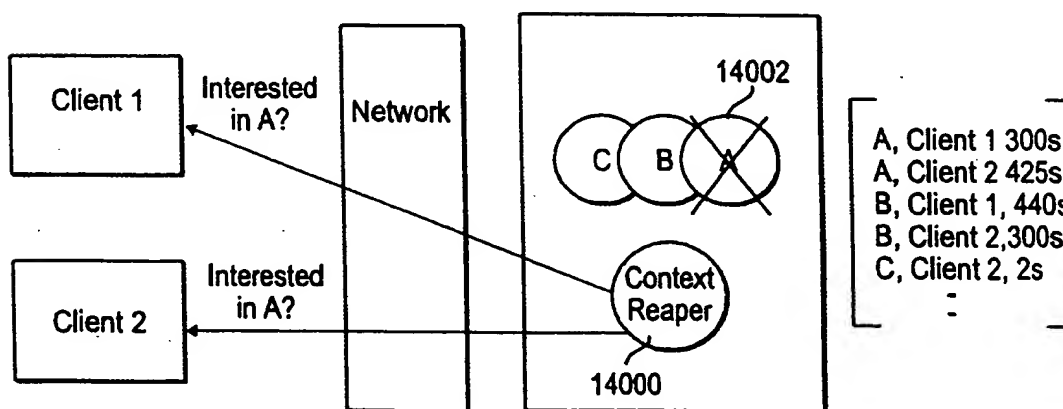


Fig. 140

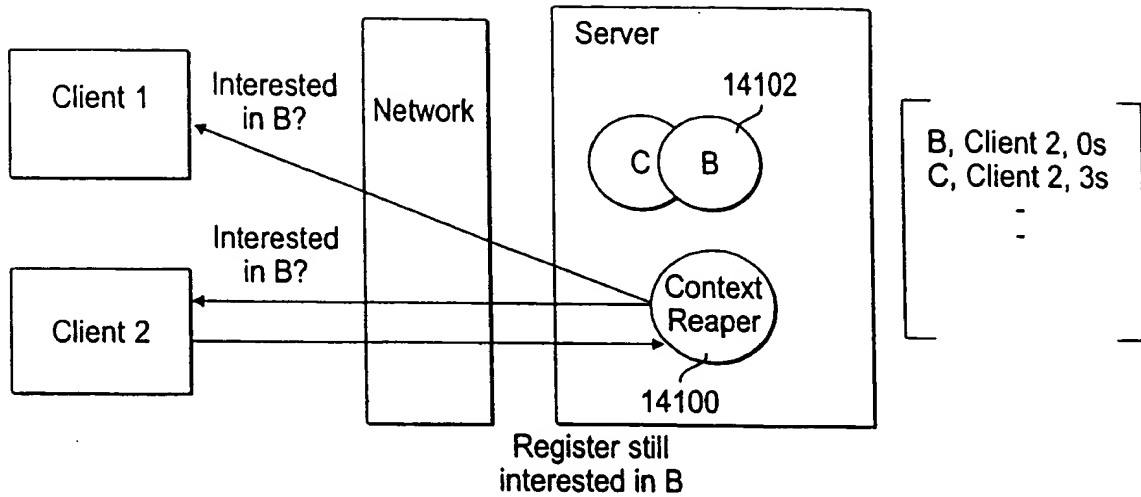


Fig. 141

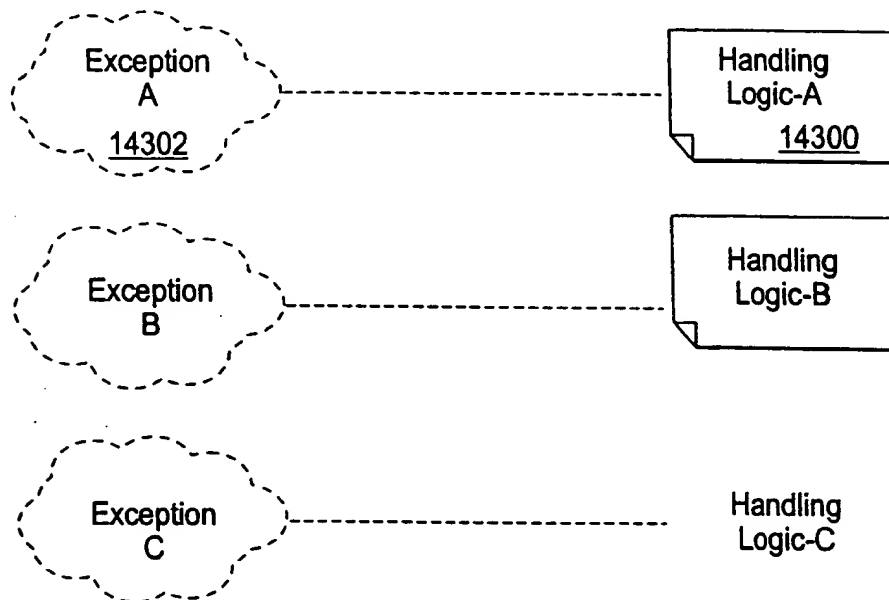


Fig. 143

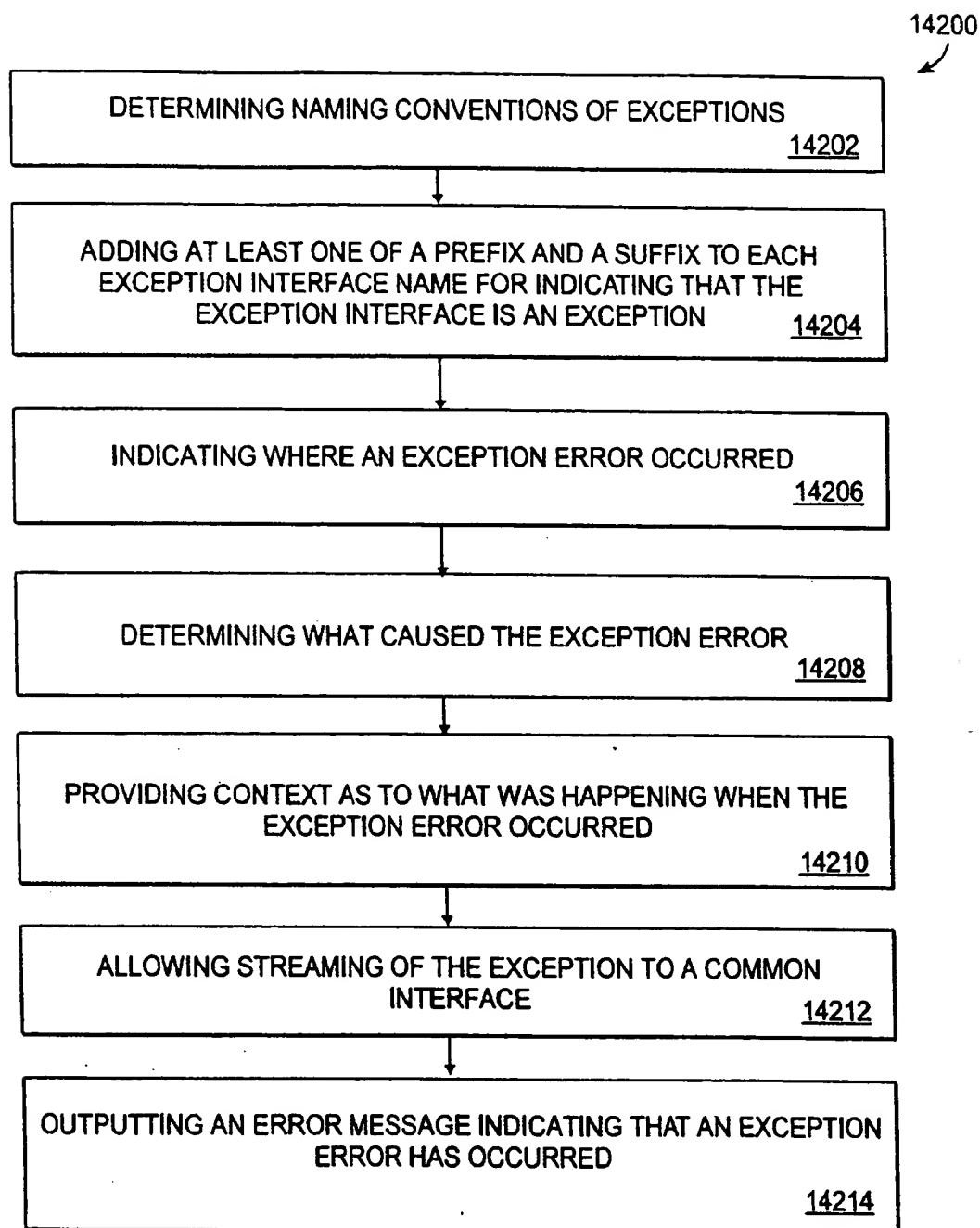
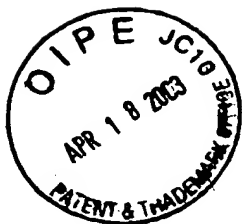


Fig. 142



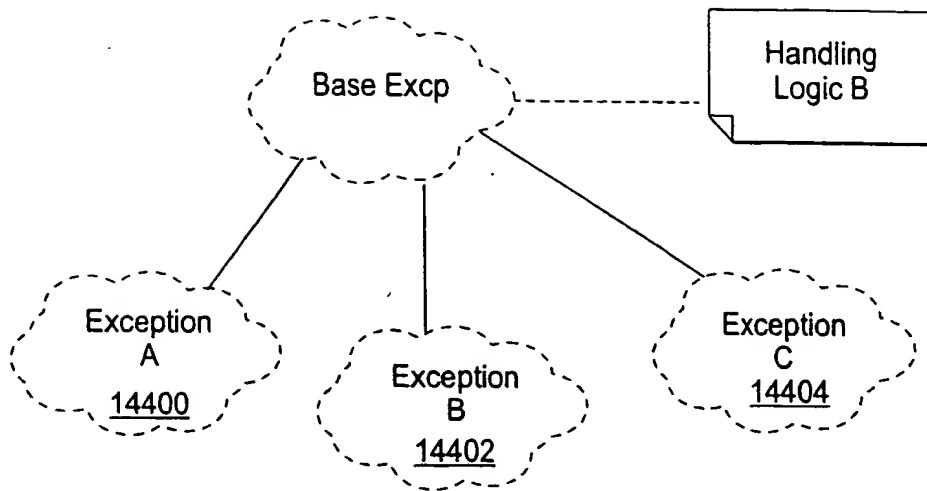


Fig. 144

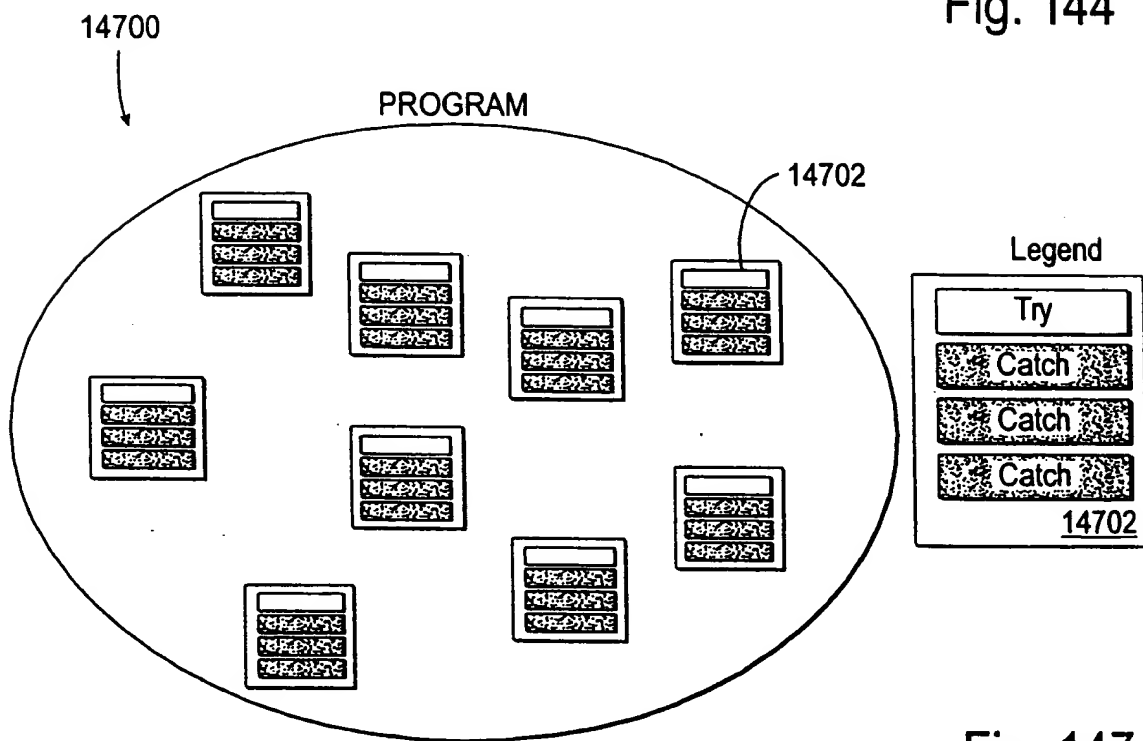


Fig. 147

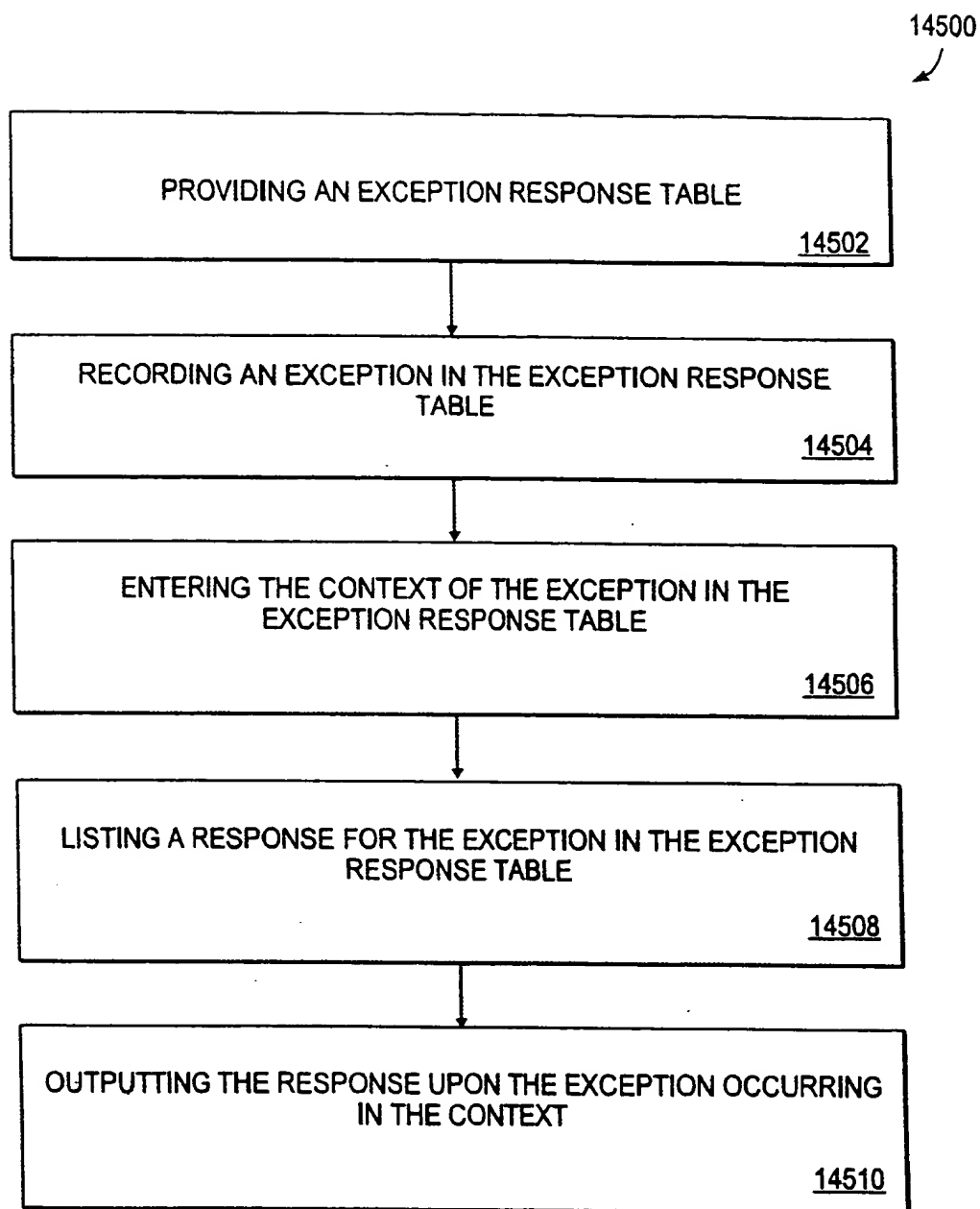


Fig. 145

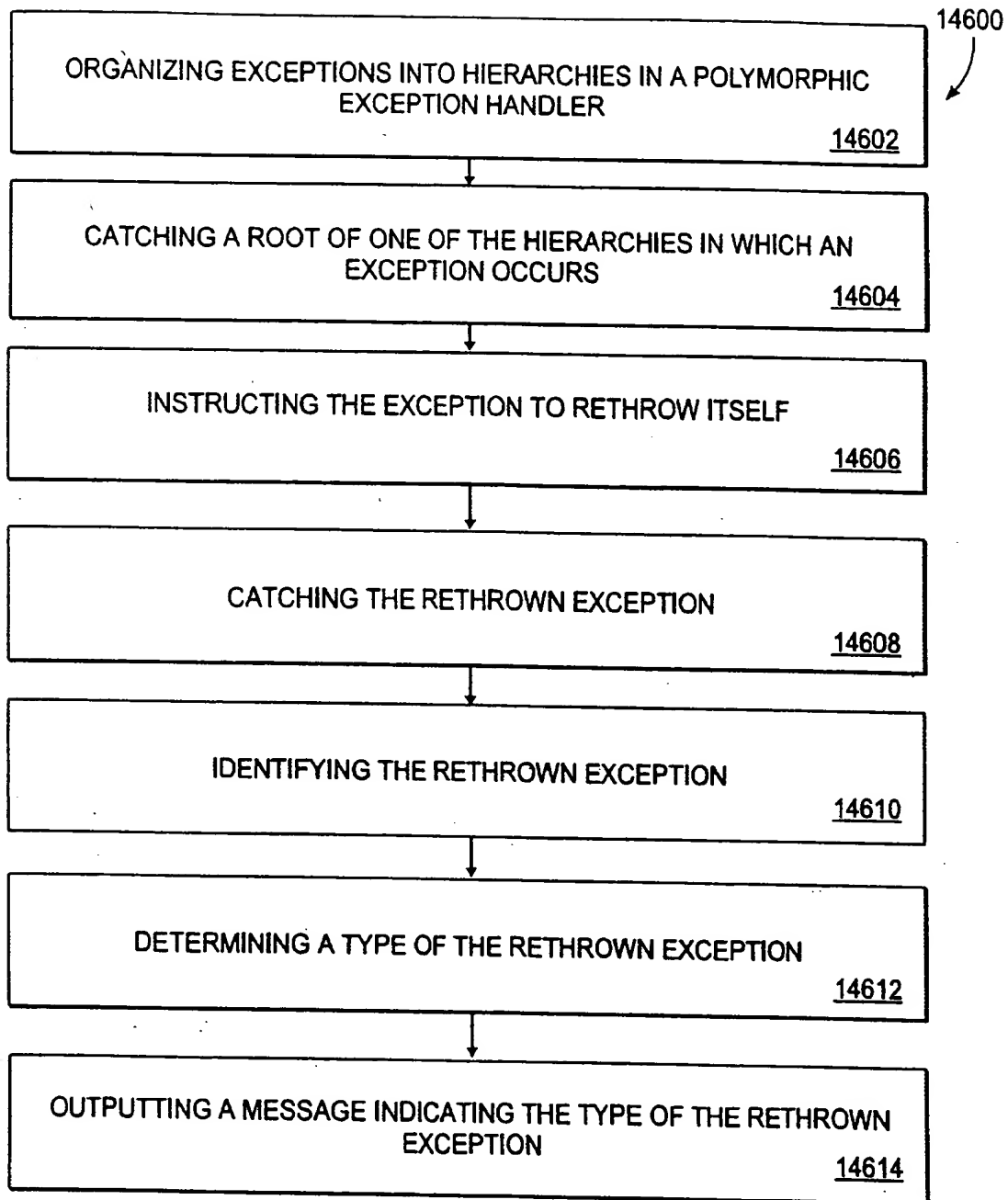
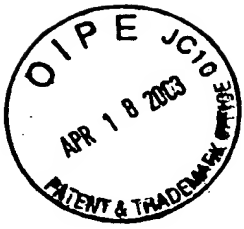


Fig. 146

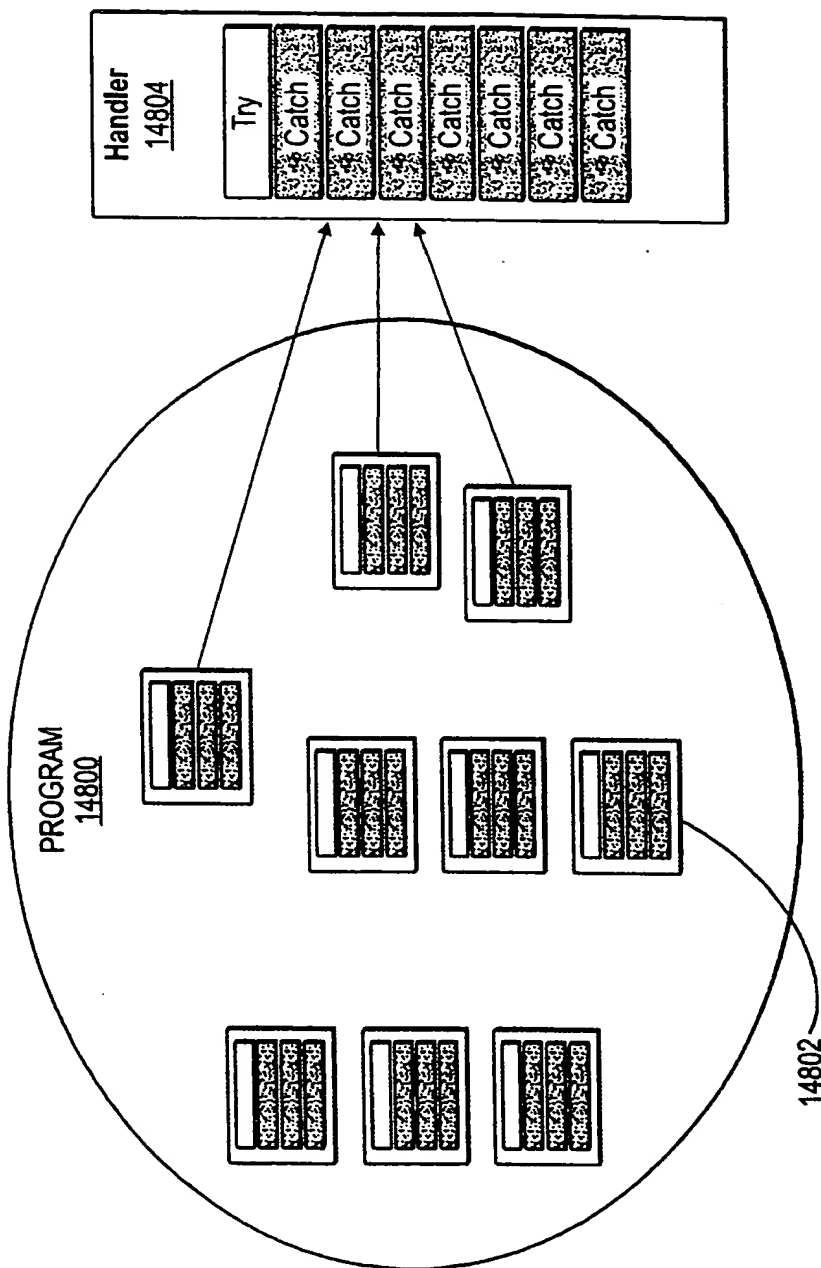


Fig. 148

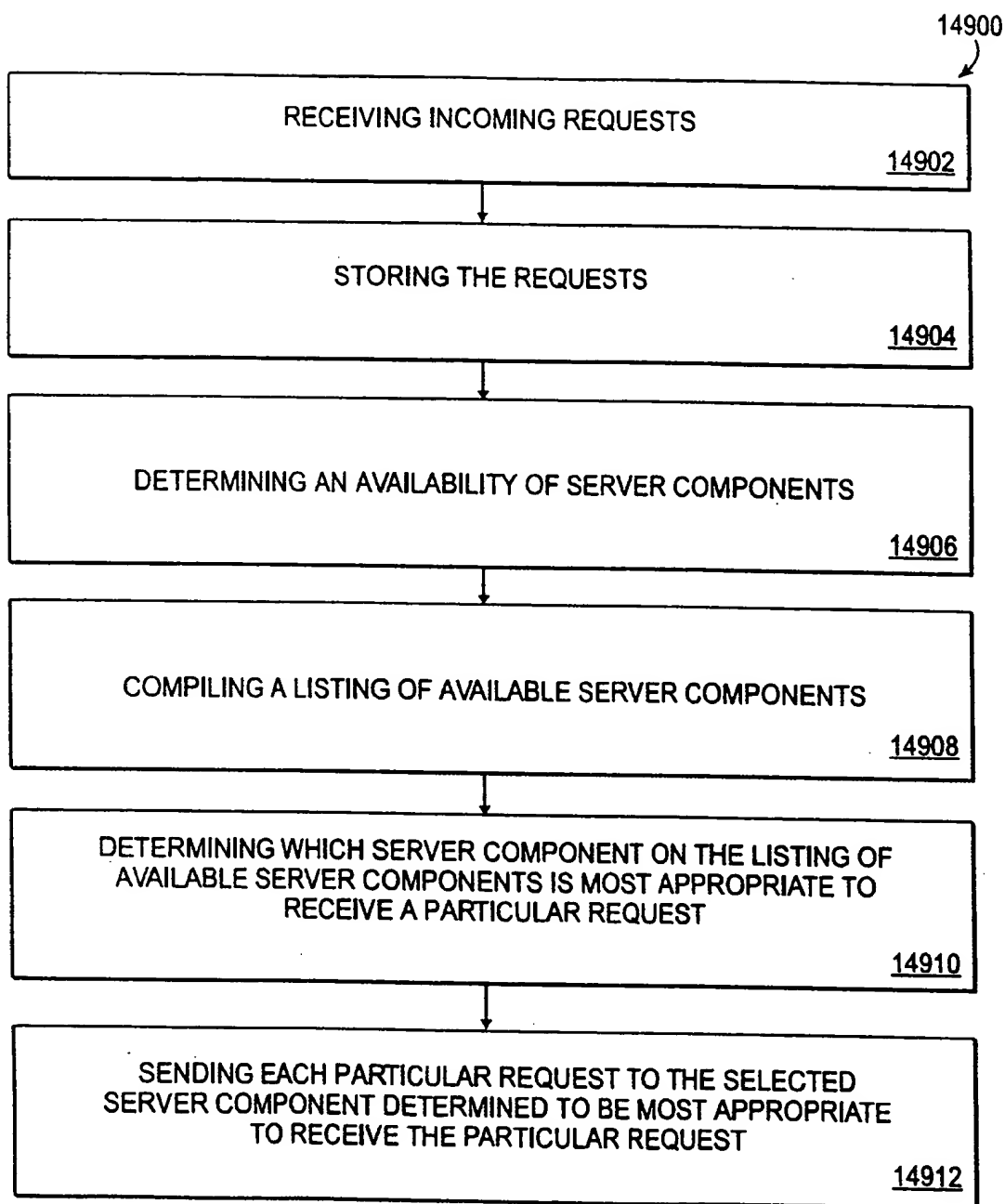


Fig. 149

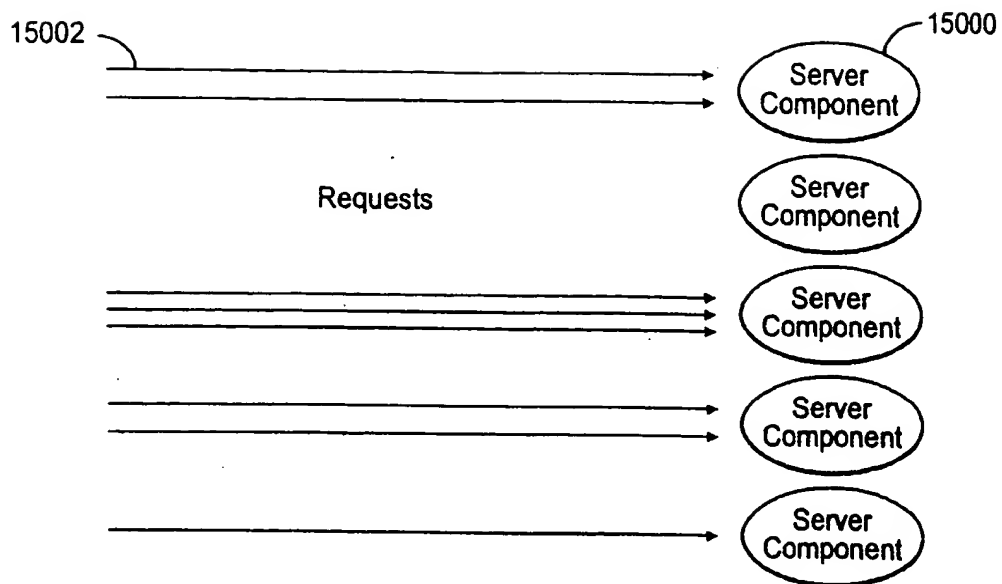


Fig. 150

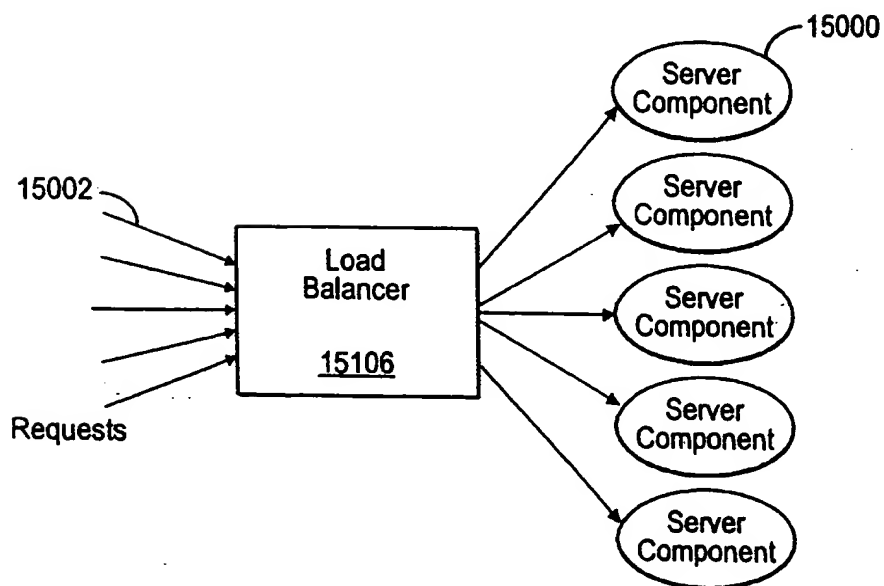


Fig. 151

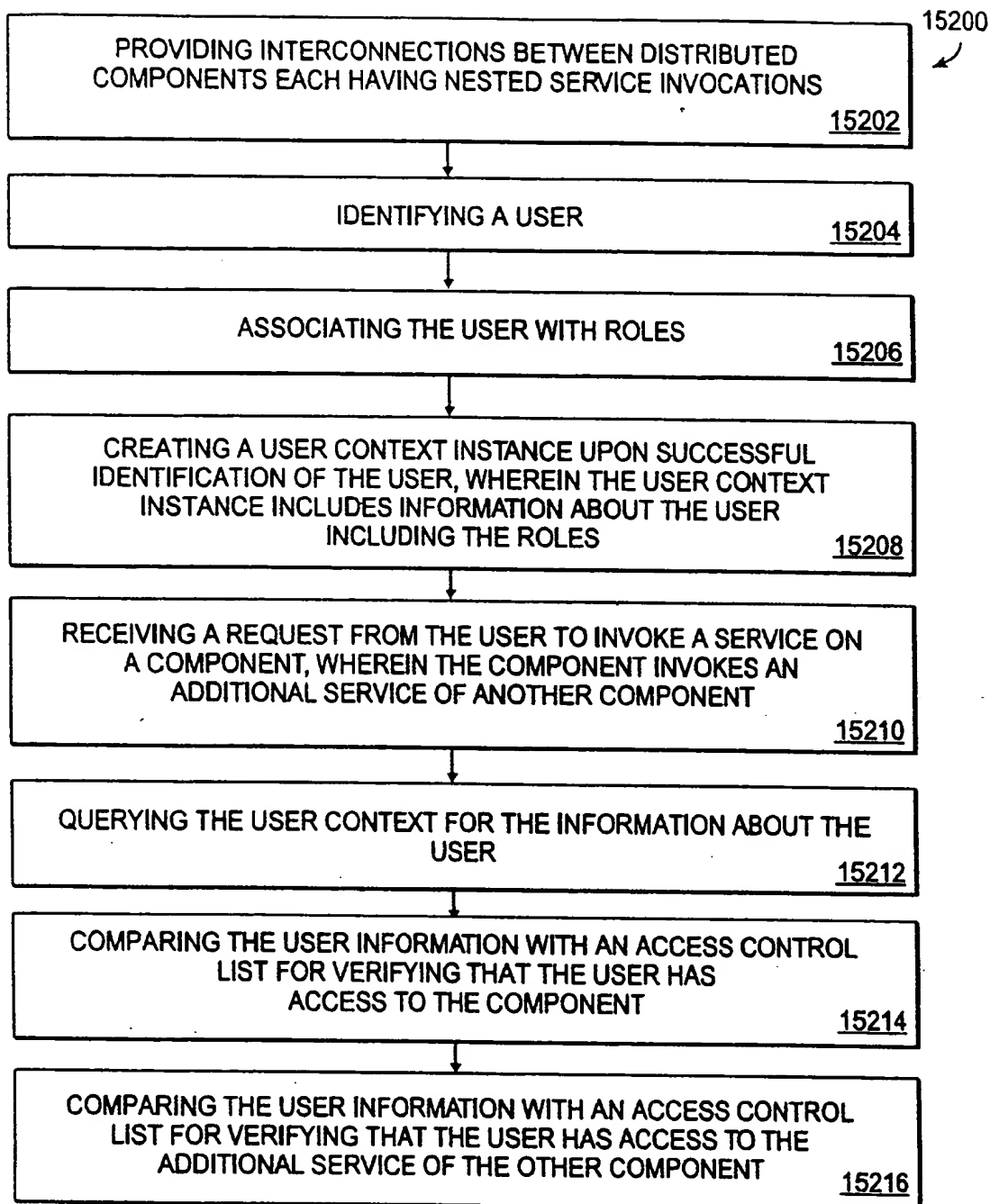


Fig. 152

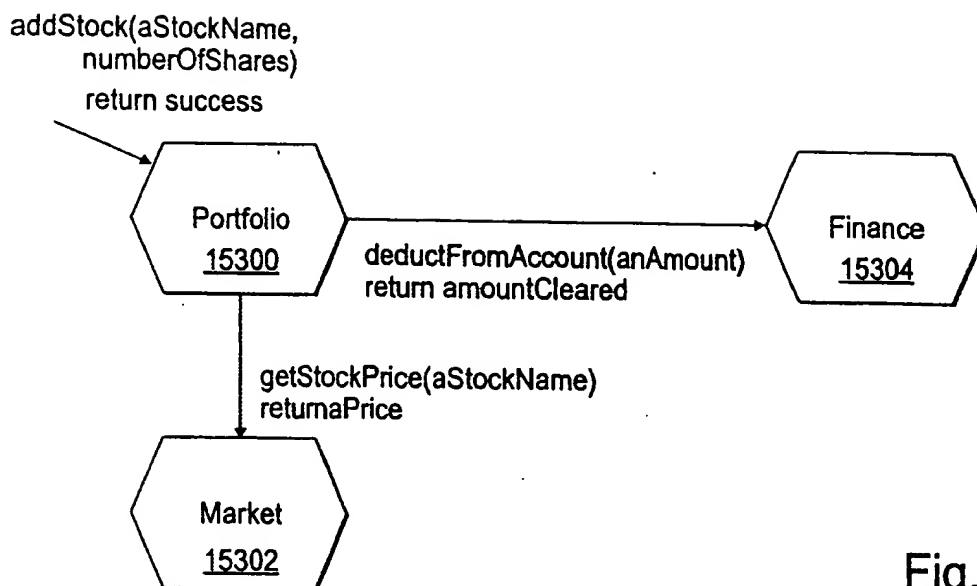
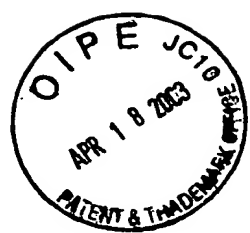


Fig. 153

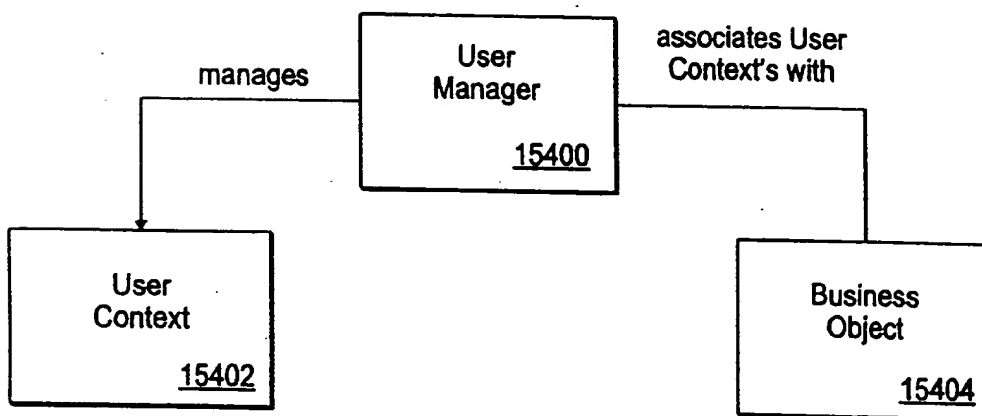


Fig. 154





15500

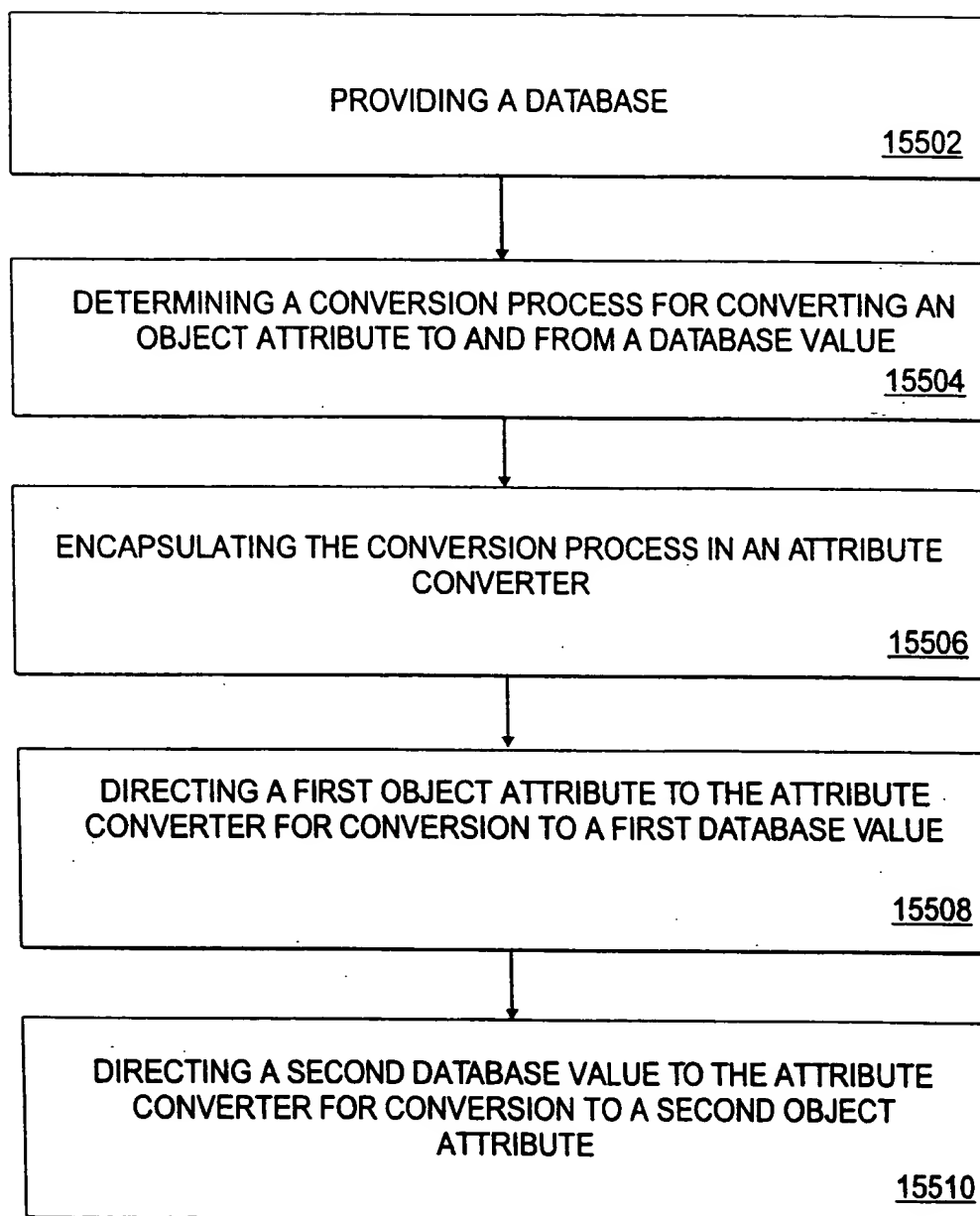


Fig. 155

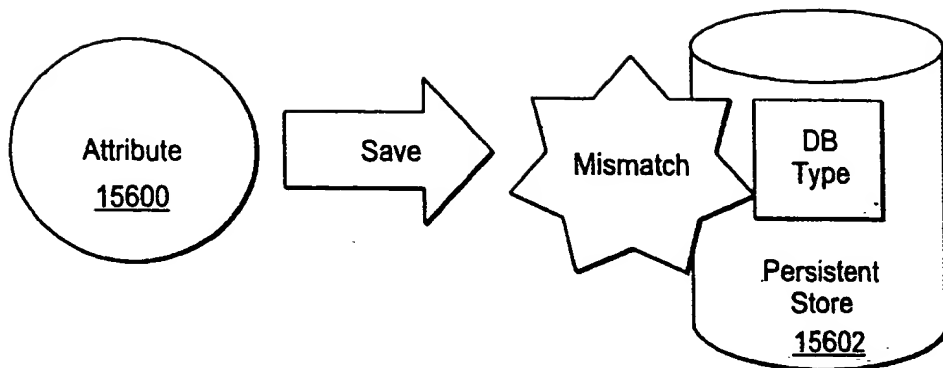


Fig. 156

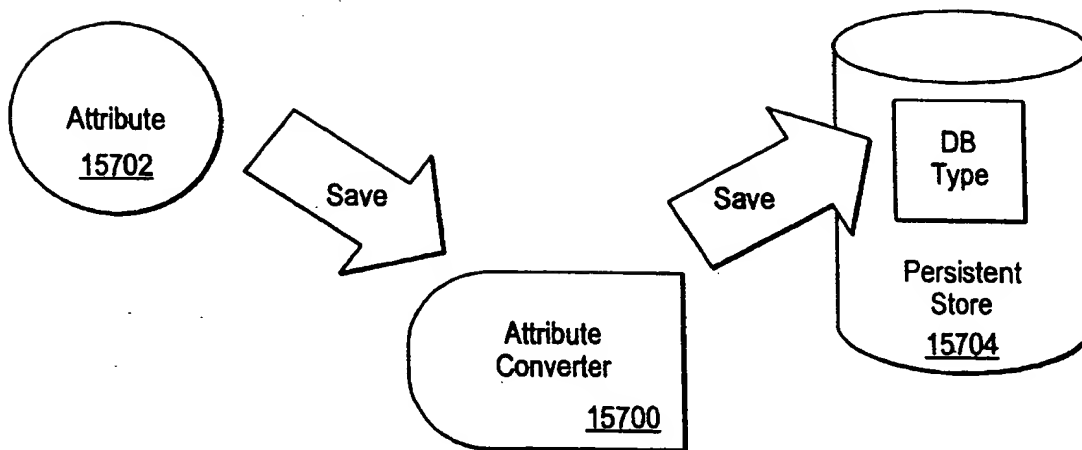


Fig. 157

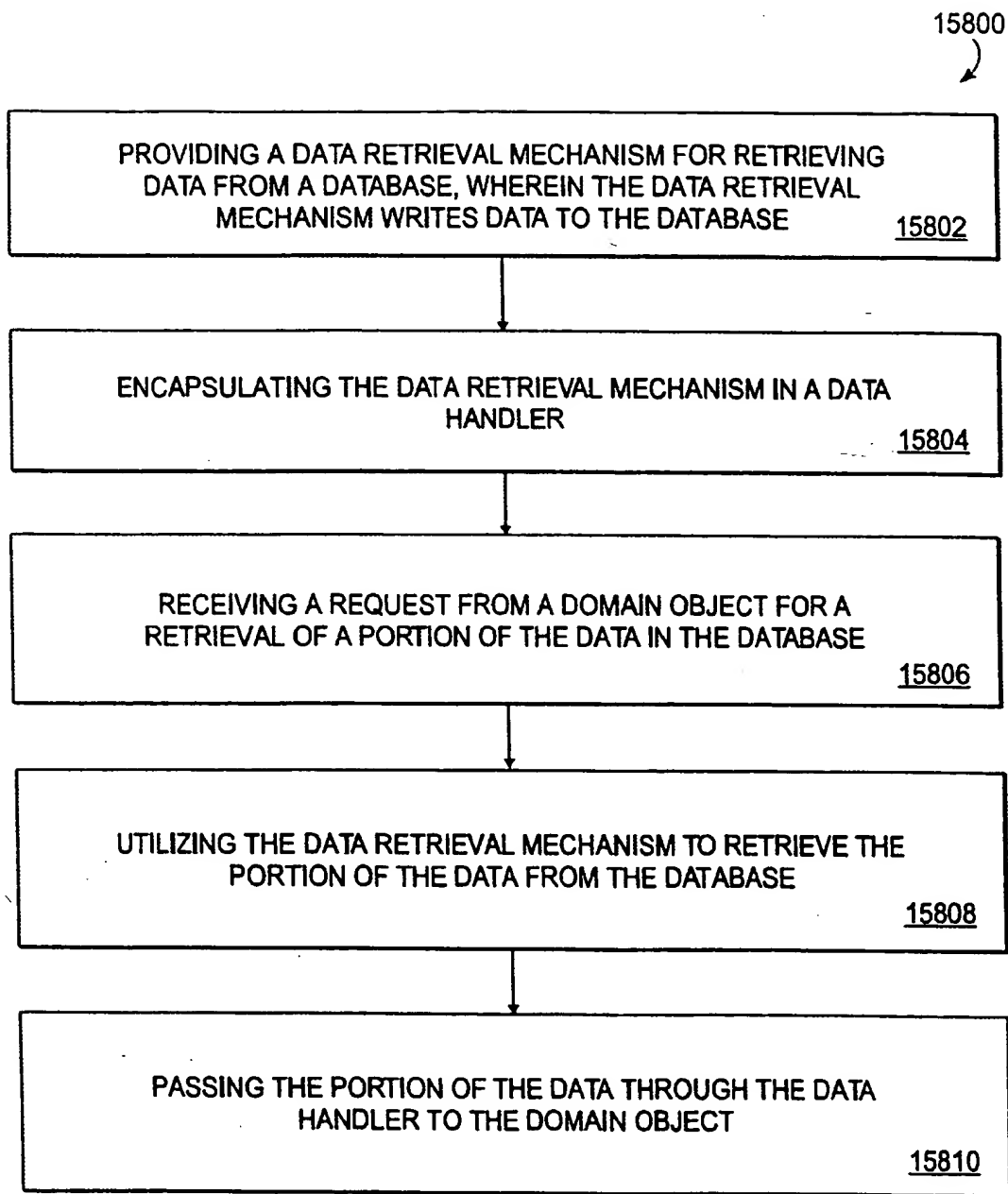


Fig. 158

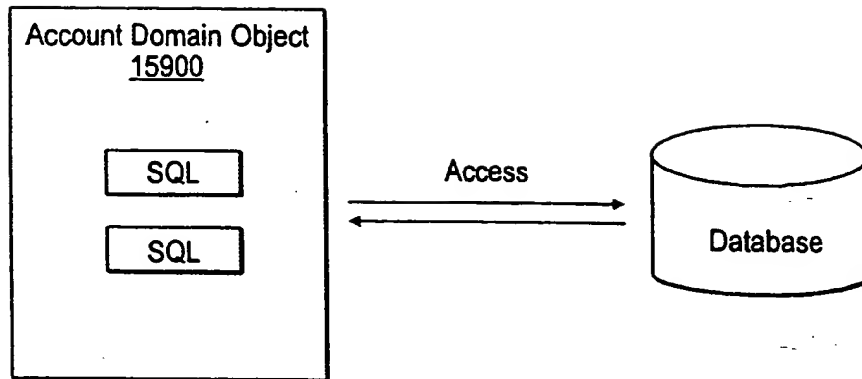
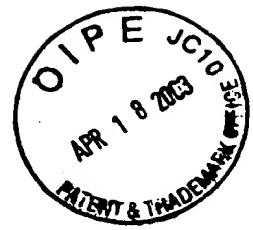


Fig. 159

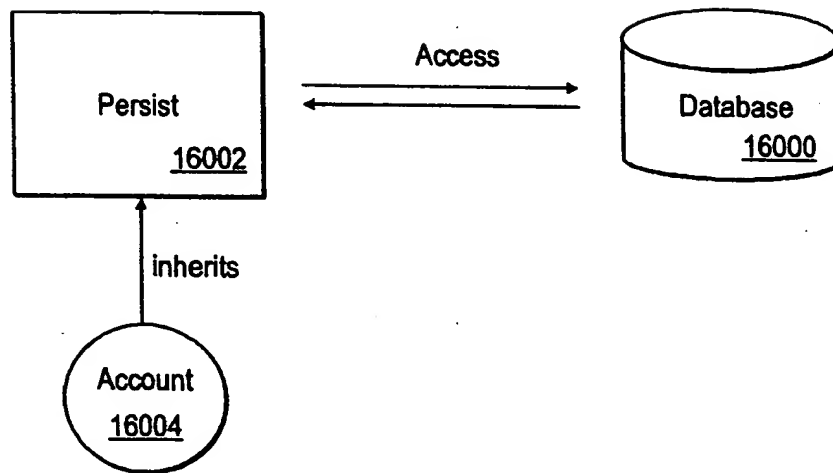


Fig. 160

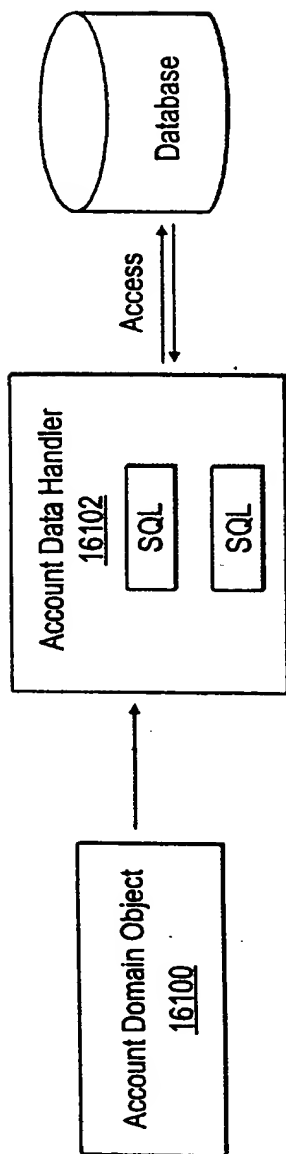


Fig. 161

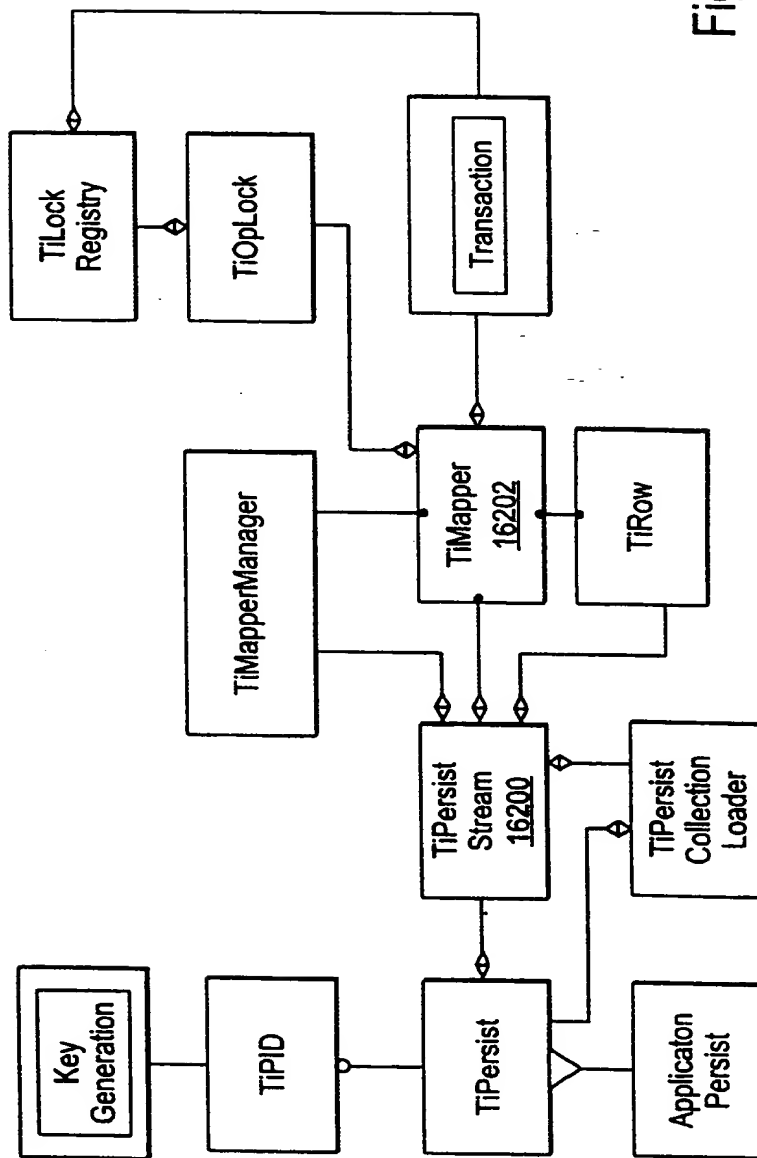
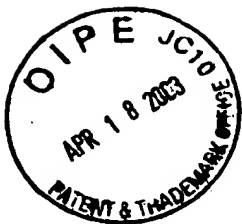


Fig. 162



16300

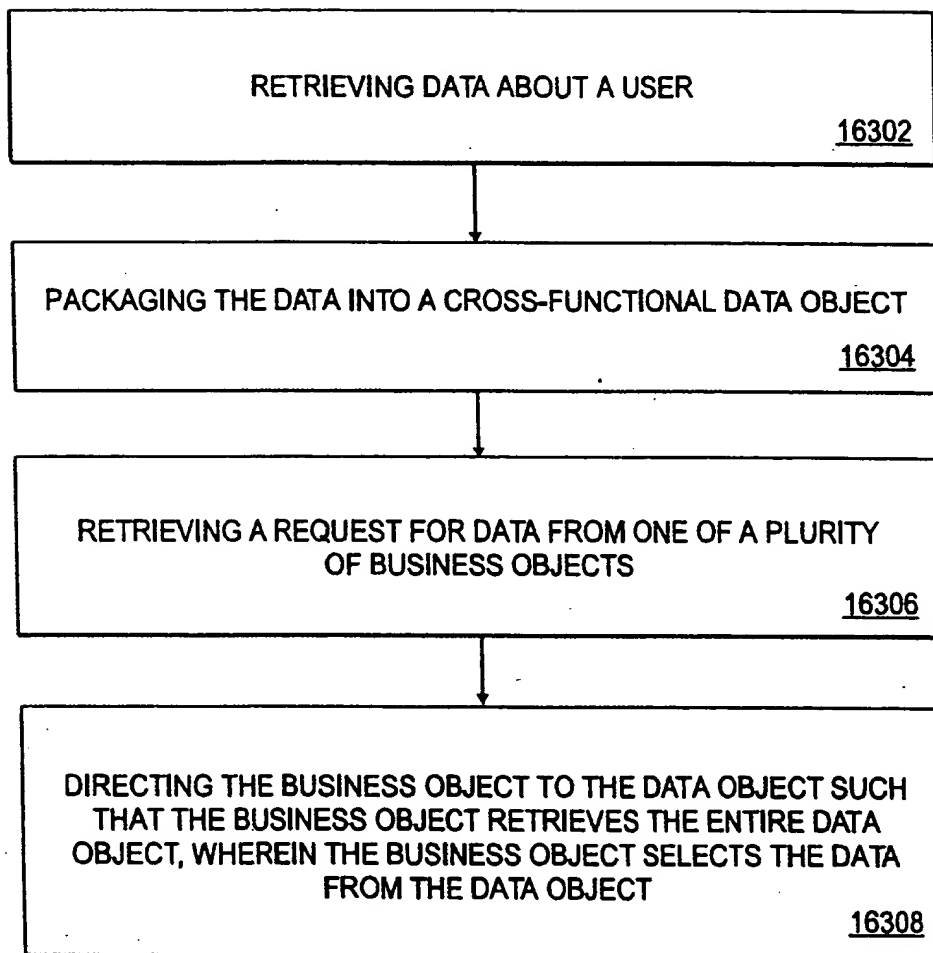


Fig. 163

Account Payment	
Account ID	101
Customer ID	ABCD
<hr/>	
Service charges	\$10.93
Balance Due	\$27.11
Amount Paid	\$27.11
Date	7/2/95
<hr/>	
<input type="radio"/> Credit Card #	3892
<input type="radio"/> Check#	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	



```
struct AccountPaymentData
{
    char    accountID[24]
           customerID[24]
    Money   serviceCharges,
           balanceDue,
           amountPaid;
    Date    paymentdate
    int     creditCardNum,
           checkNum;
};
```

Fig. 164

Account Payment	
Account ID	101
Customer ID	ABCD
<hr/>	
Service charges	\$10.93
Balance Due	\$27.11
Amount Paid	\$27.11
Date	7/2/95
<hr/>	
<input type="radio"/> Credit Card #	3892
<input type="radio"/> Check#	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

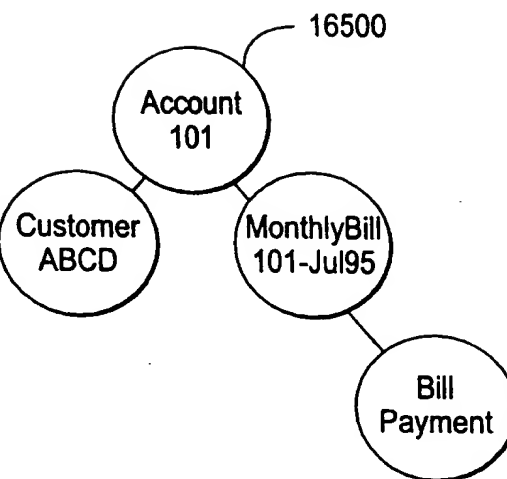


Fig. 165



16600

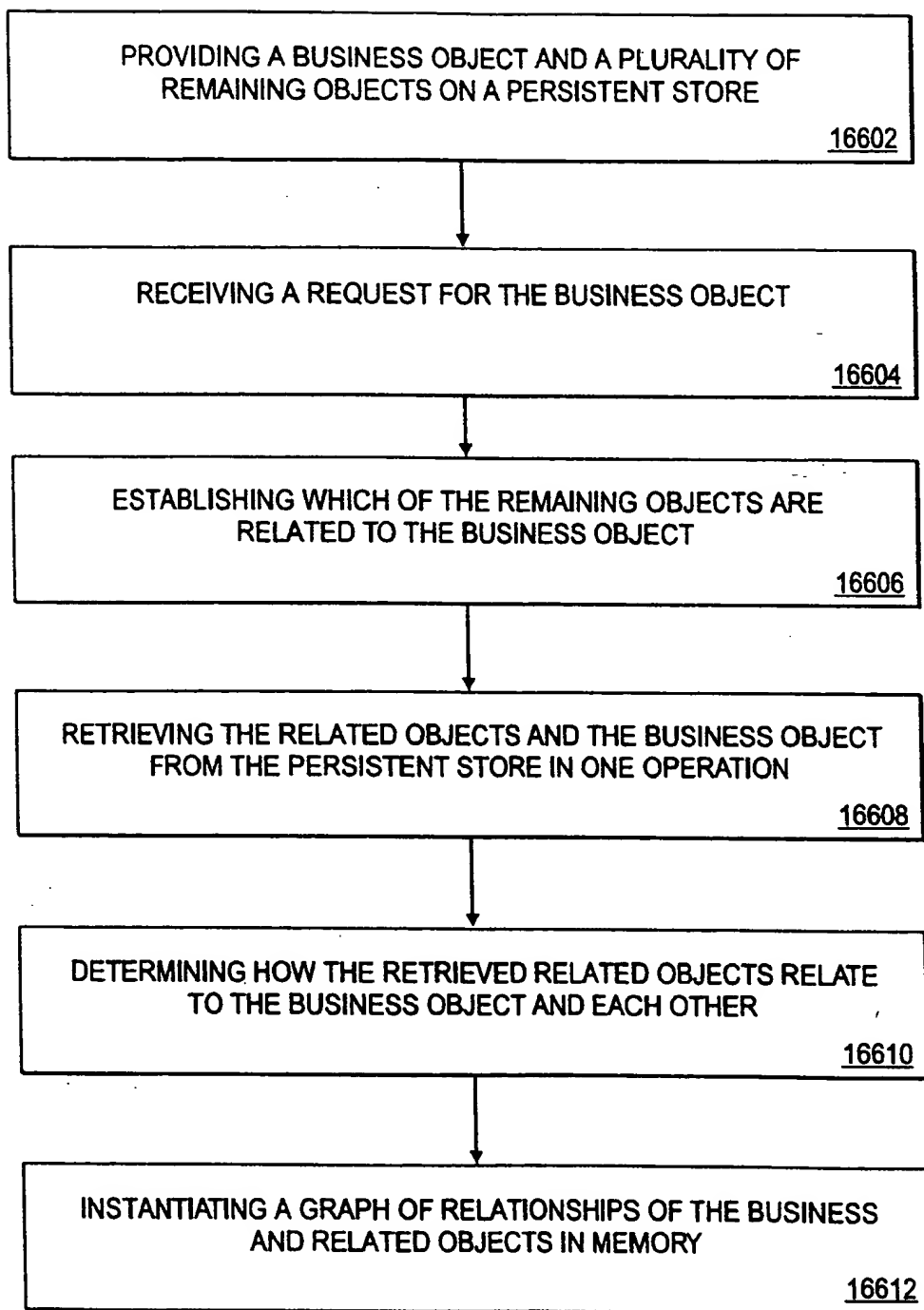


Fig. 166





16700

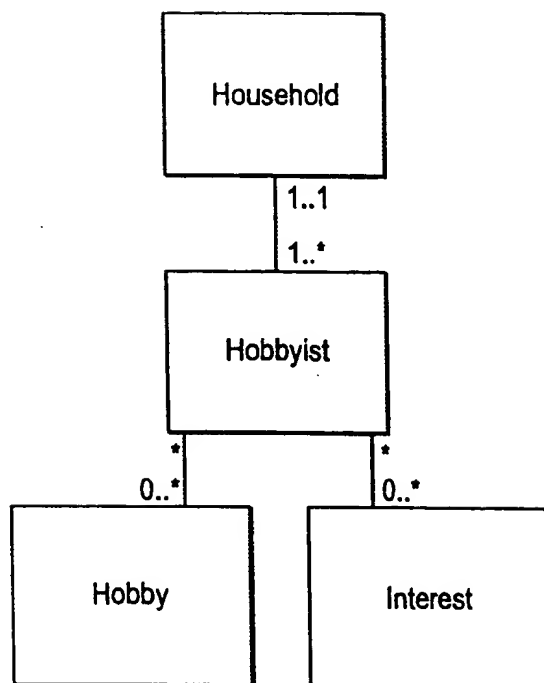


Fig. 167

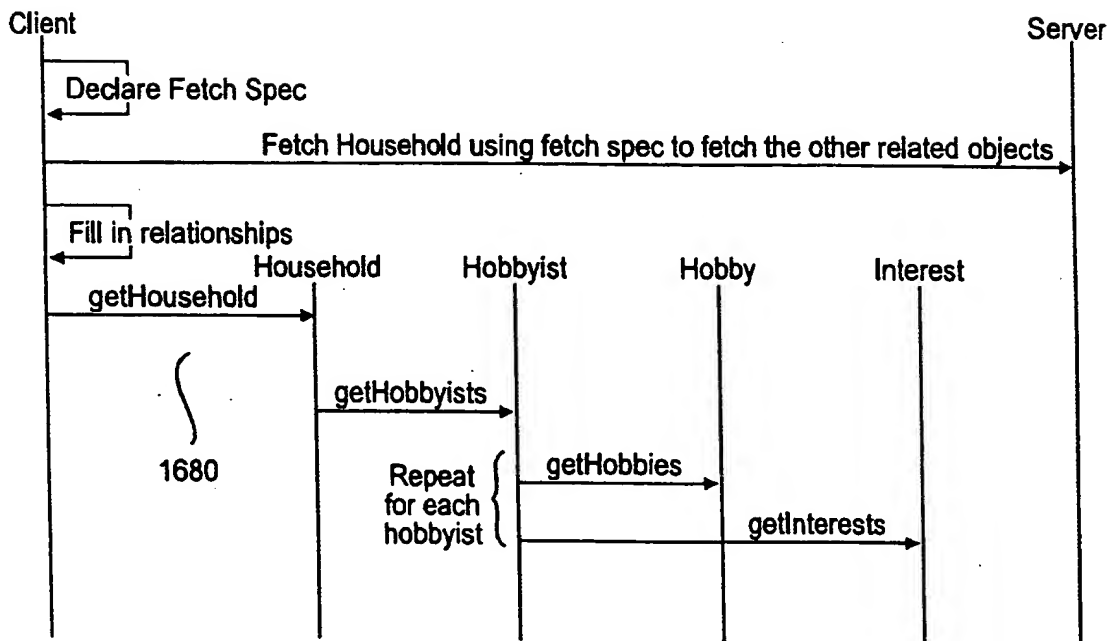


Fig. 168

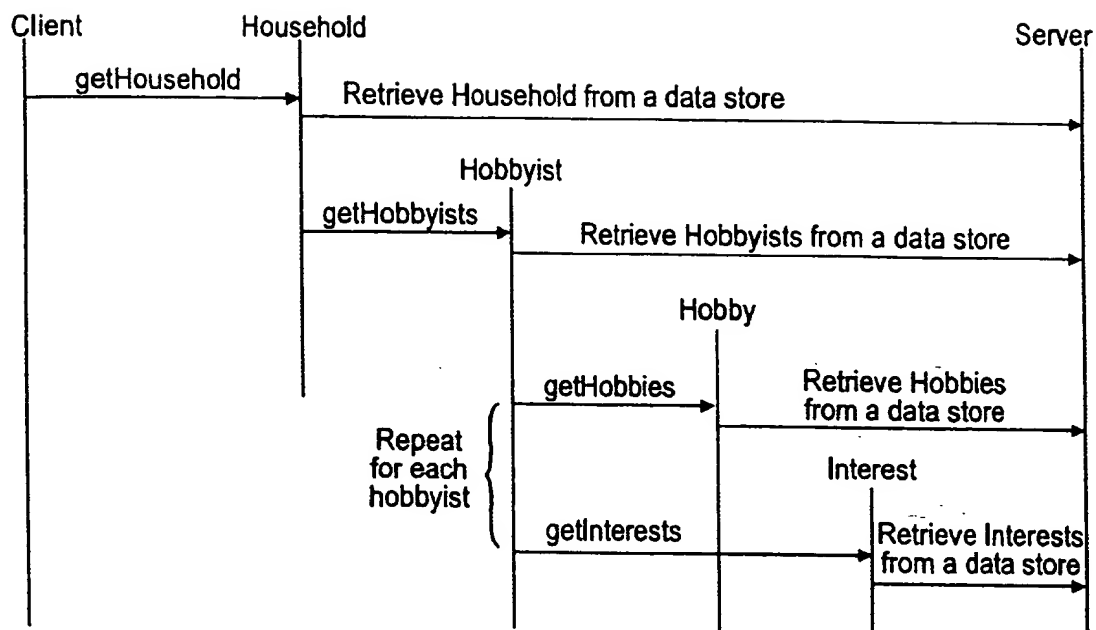
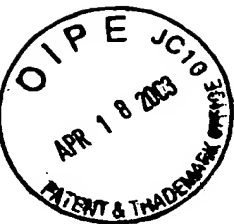


Fig. 169

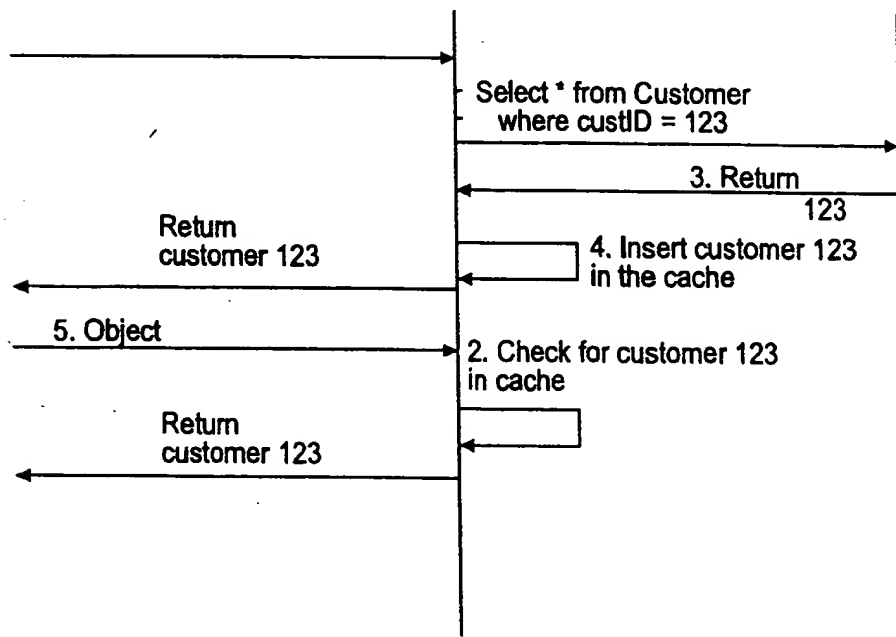


Fig. 172



17000

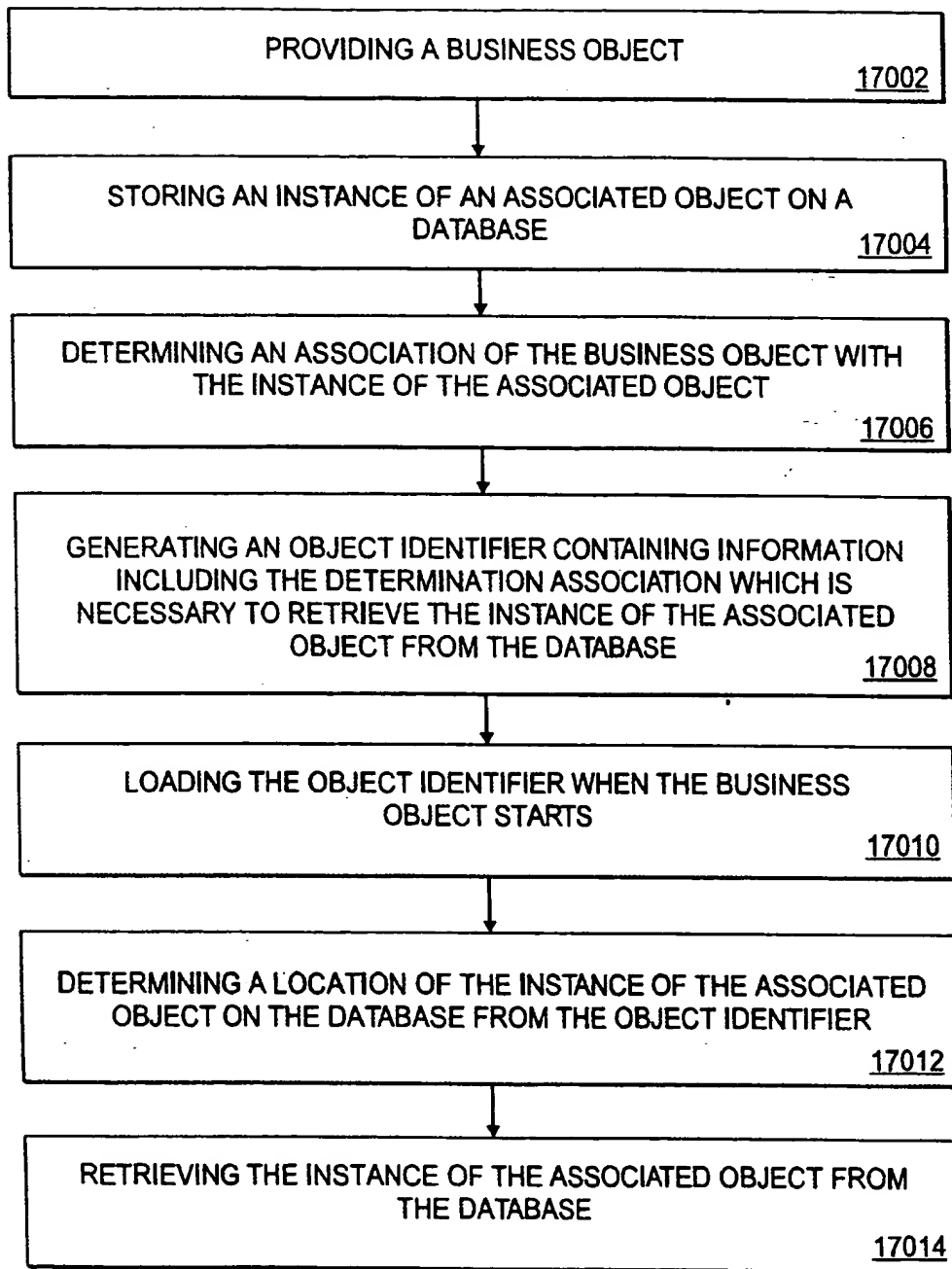
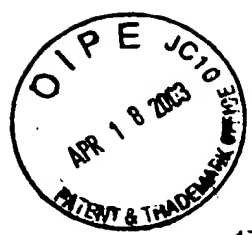


Fig. 170



17100

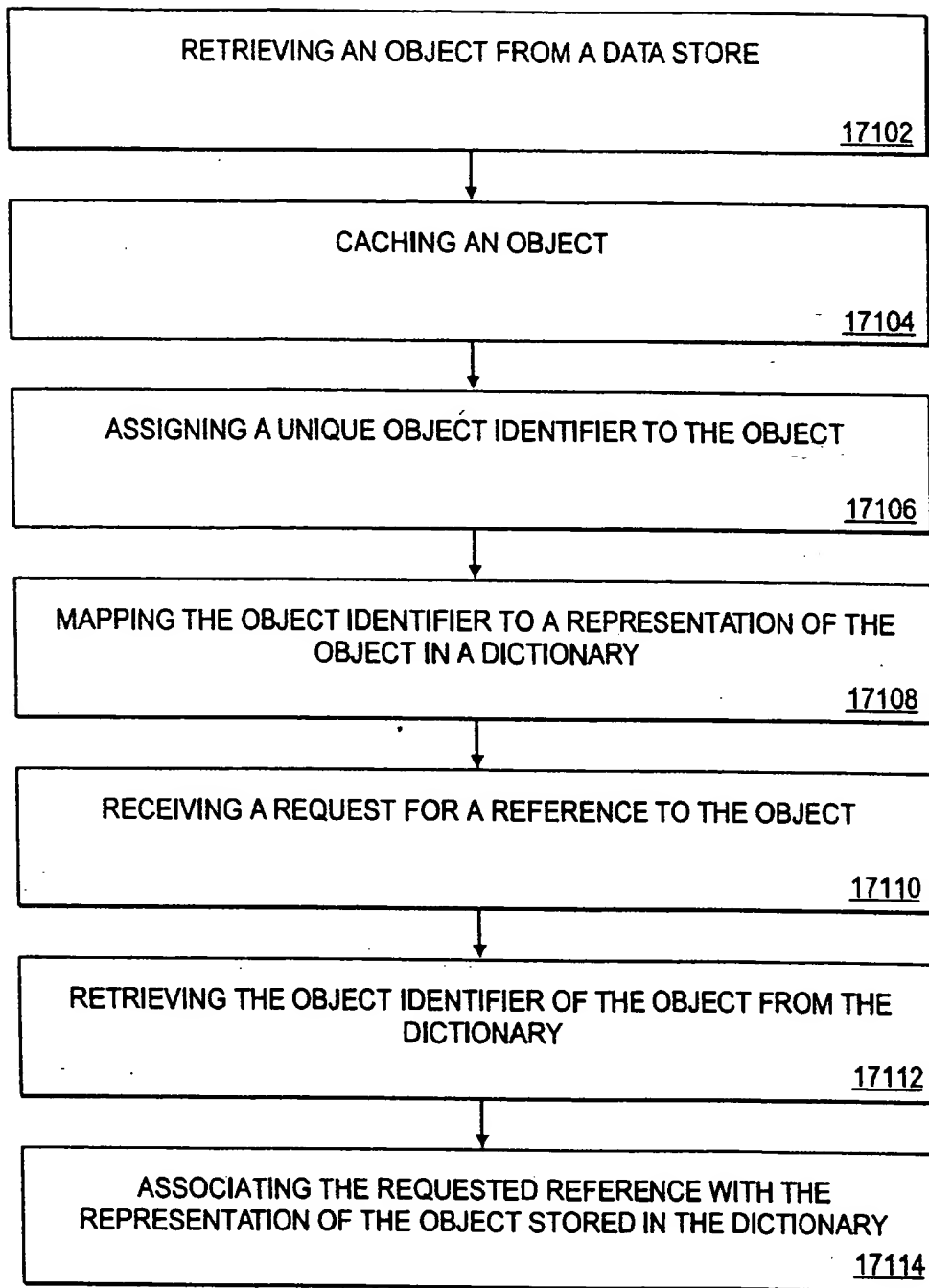


Fig. 171



17300

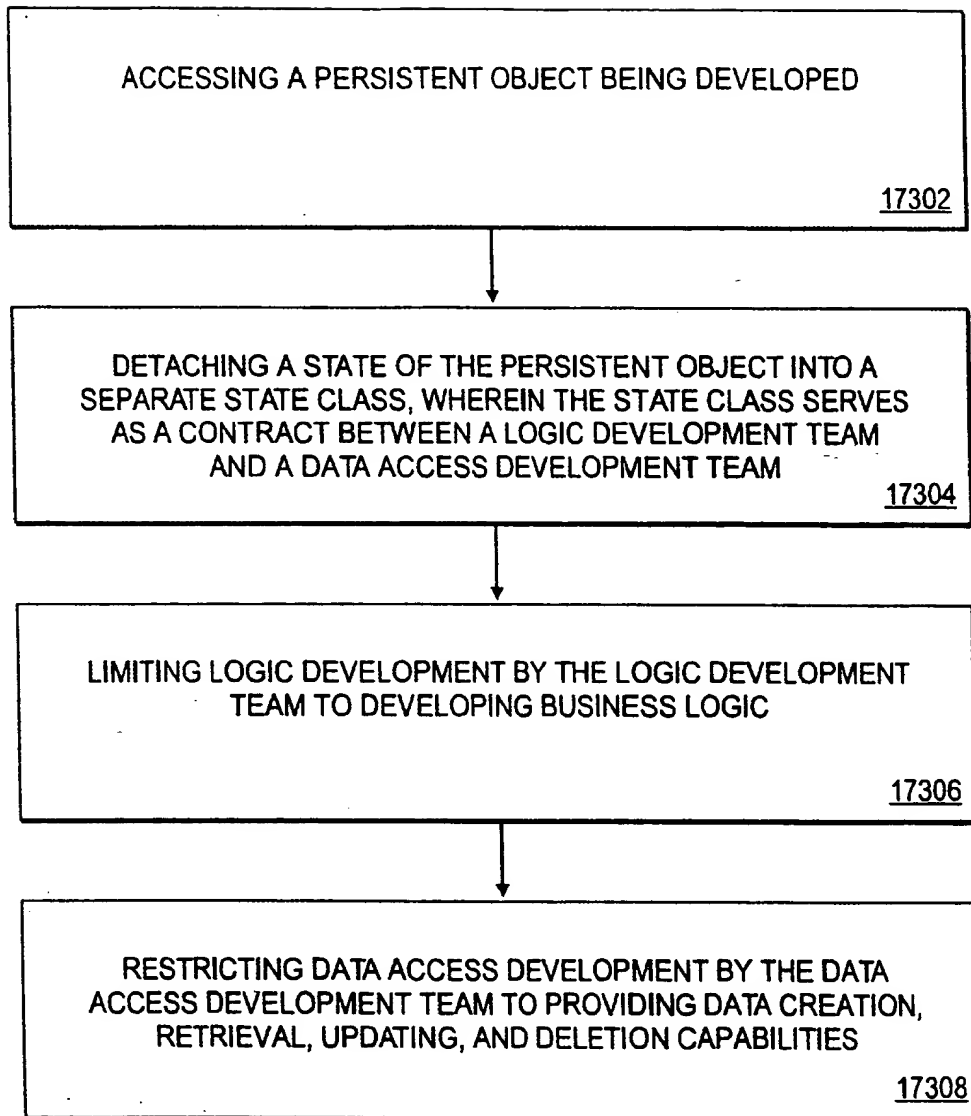


Fig. 173



17400

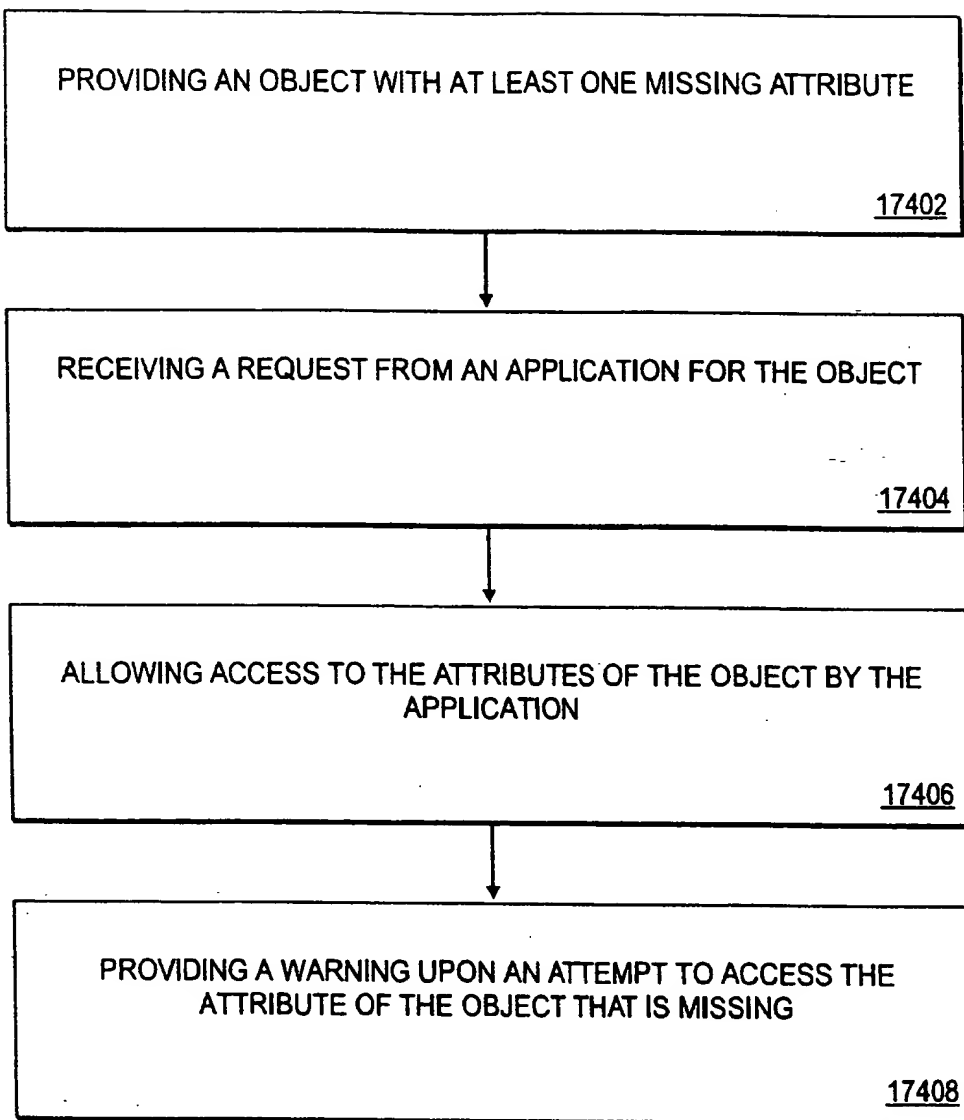


Fig. 174

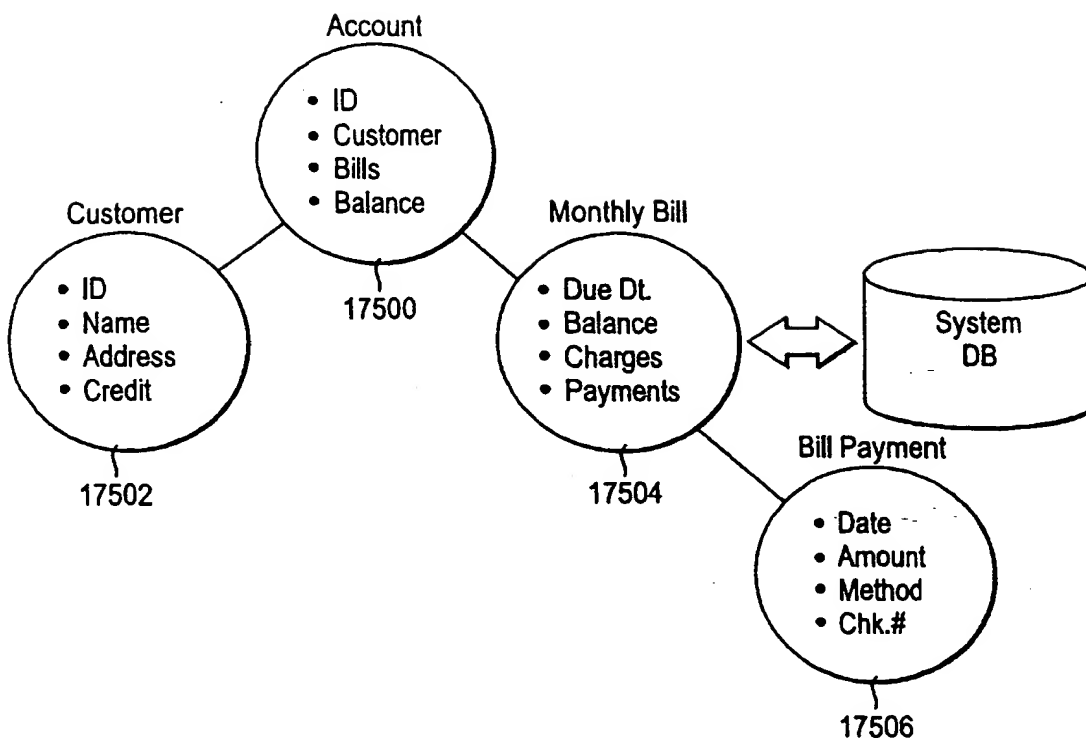


Fig. 175

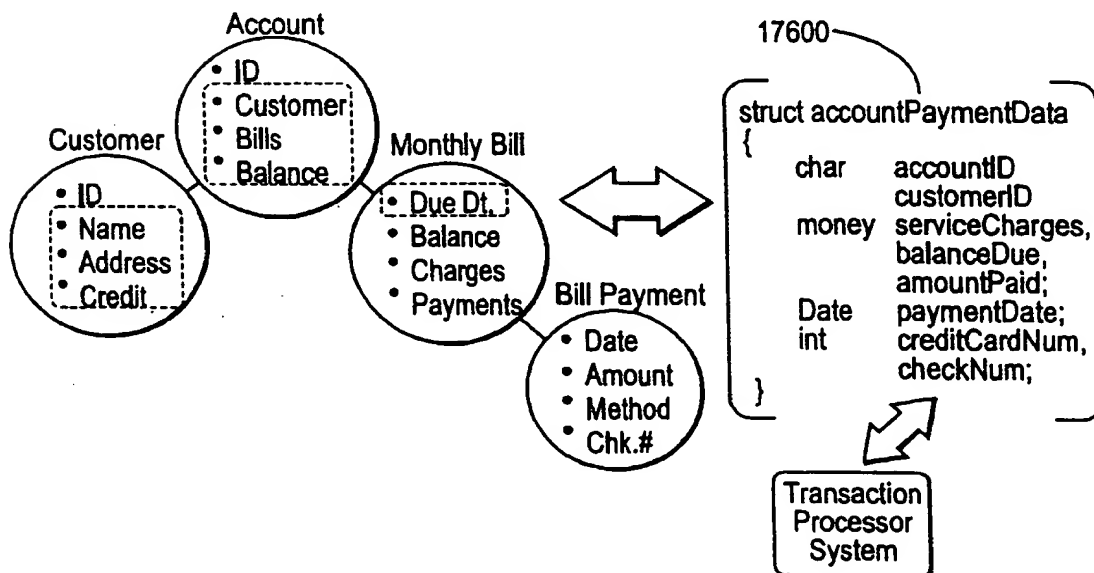


Fig. 176

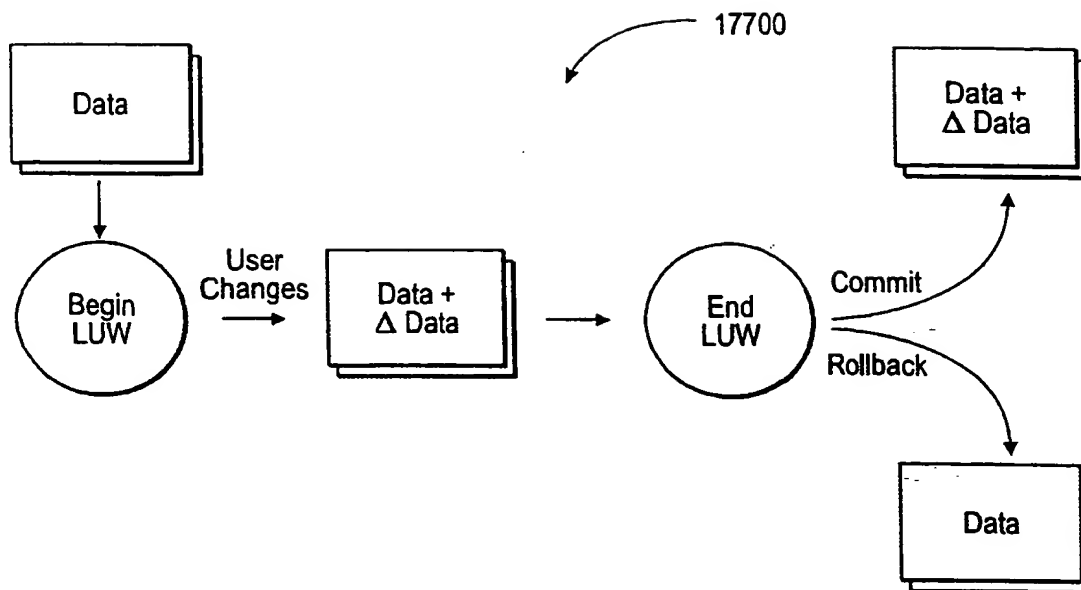


Fig. 177

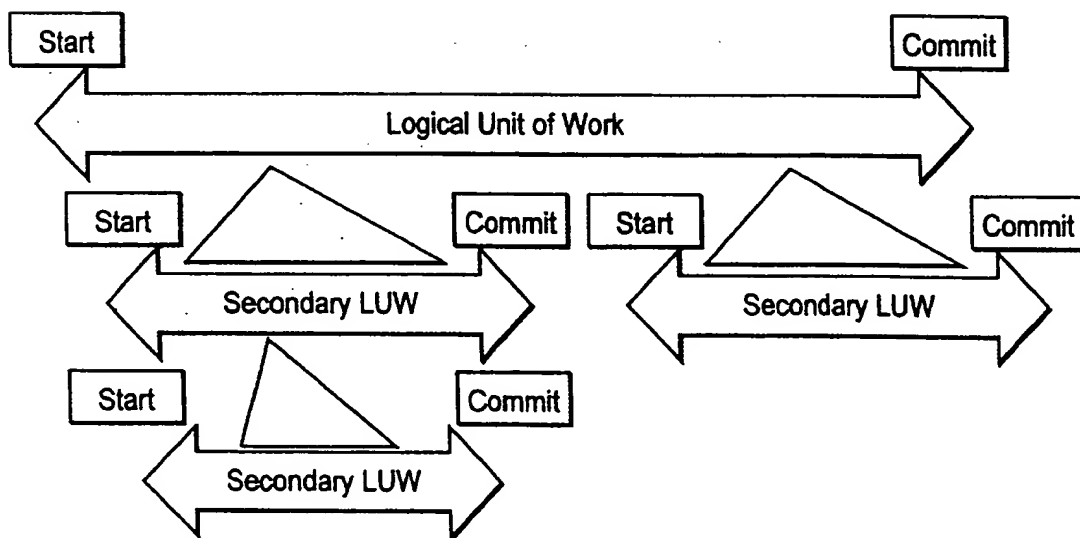
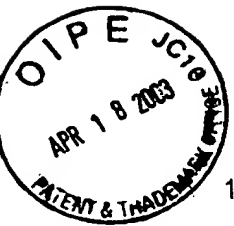


Fig. 178





17900

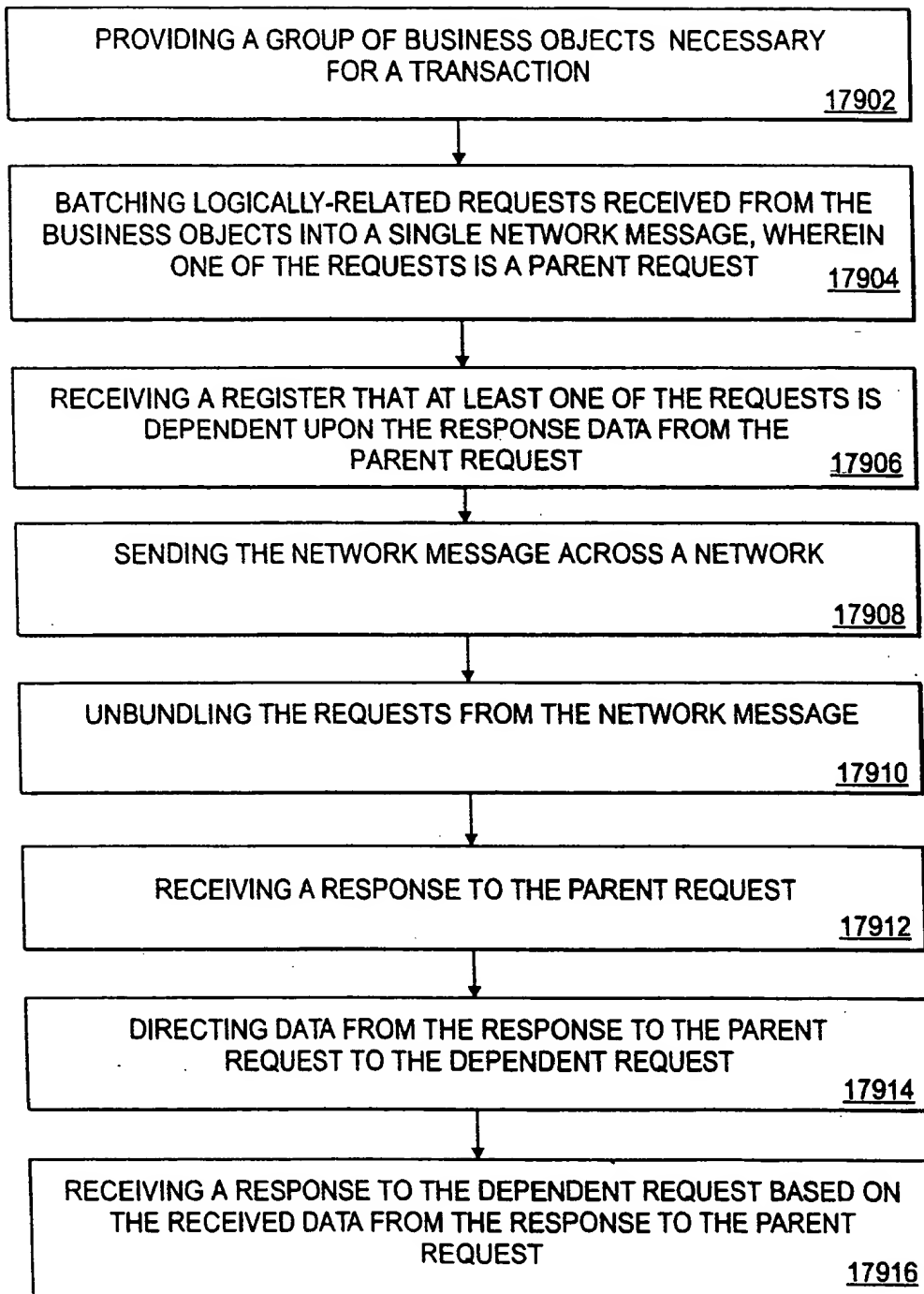


Fig. 179

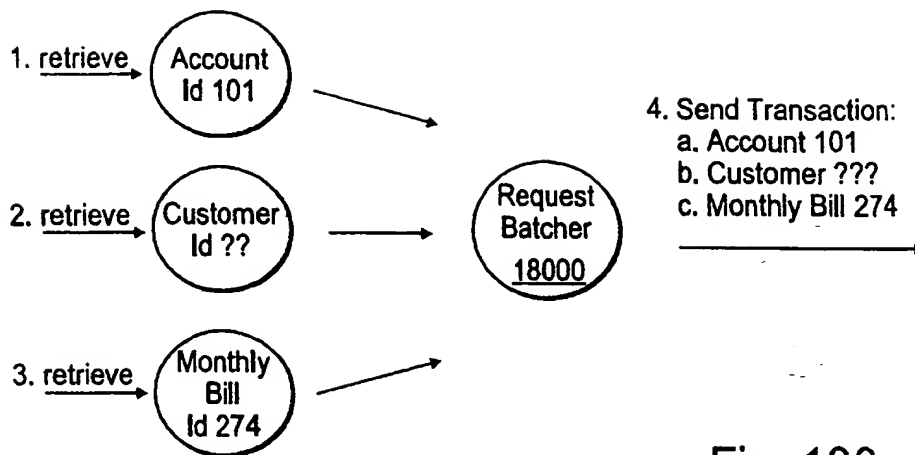


Fig. 180

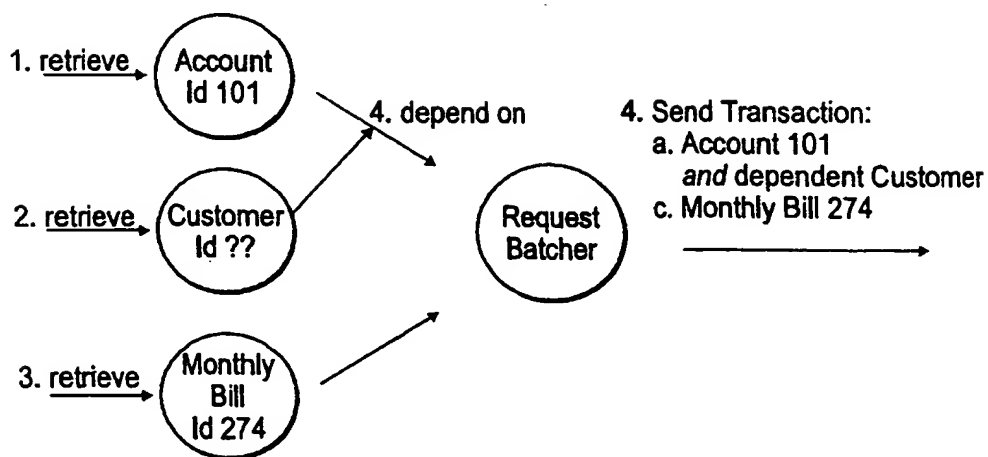


Fig. 181



18200

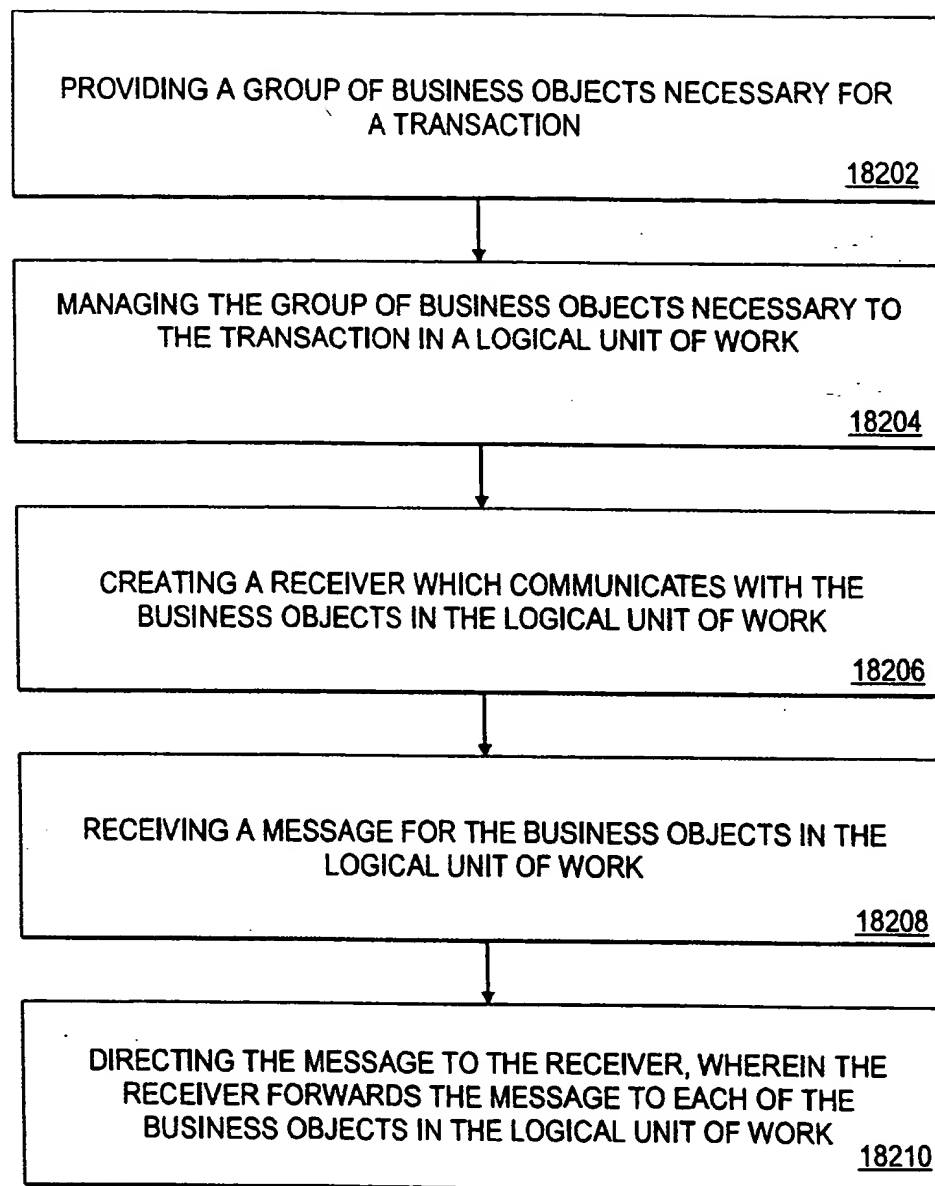


Fig. 182

Account Payment	
Account ID	101
Customer ID	ABCD
Service Charges	\$10.93
Balance Due	\$27.11
Amount Paid	\$27.11
Date	7/2/95
<input checked="" type="radio"/> Credit Card #	3892
<input type="radio"/> Check #	
<input type="button" value="Save"/>	<input type="button" value="Cancel"/>

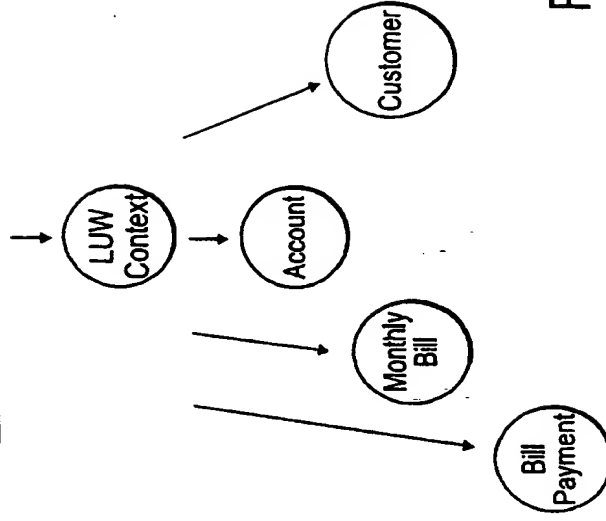


Fig. 184

Account Payment	
Account ID	101
Customer ID	ABCD
Service Charges	\$10.93
Balance Due	\$27.11
Amount Paid	\$27.11
Date	7/2/95
<input checked="" type="radio"/> Credit Card #	3892
<input type="radio"/> Check #	
<input type="button" value="Save"/>	<input type="button" value="Cancel"/>

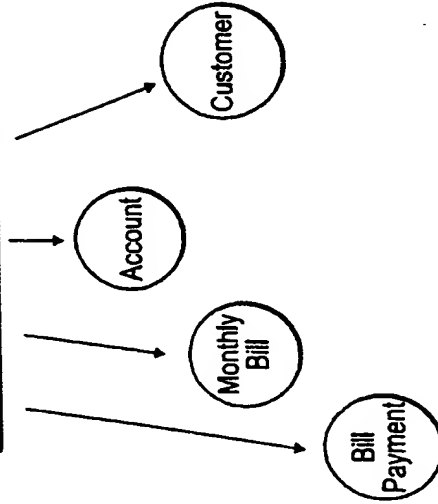
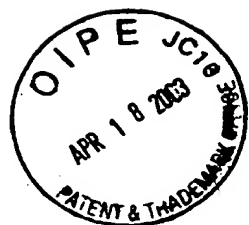


Fig. 183



18500

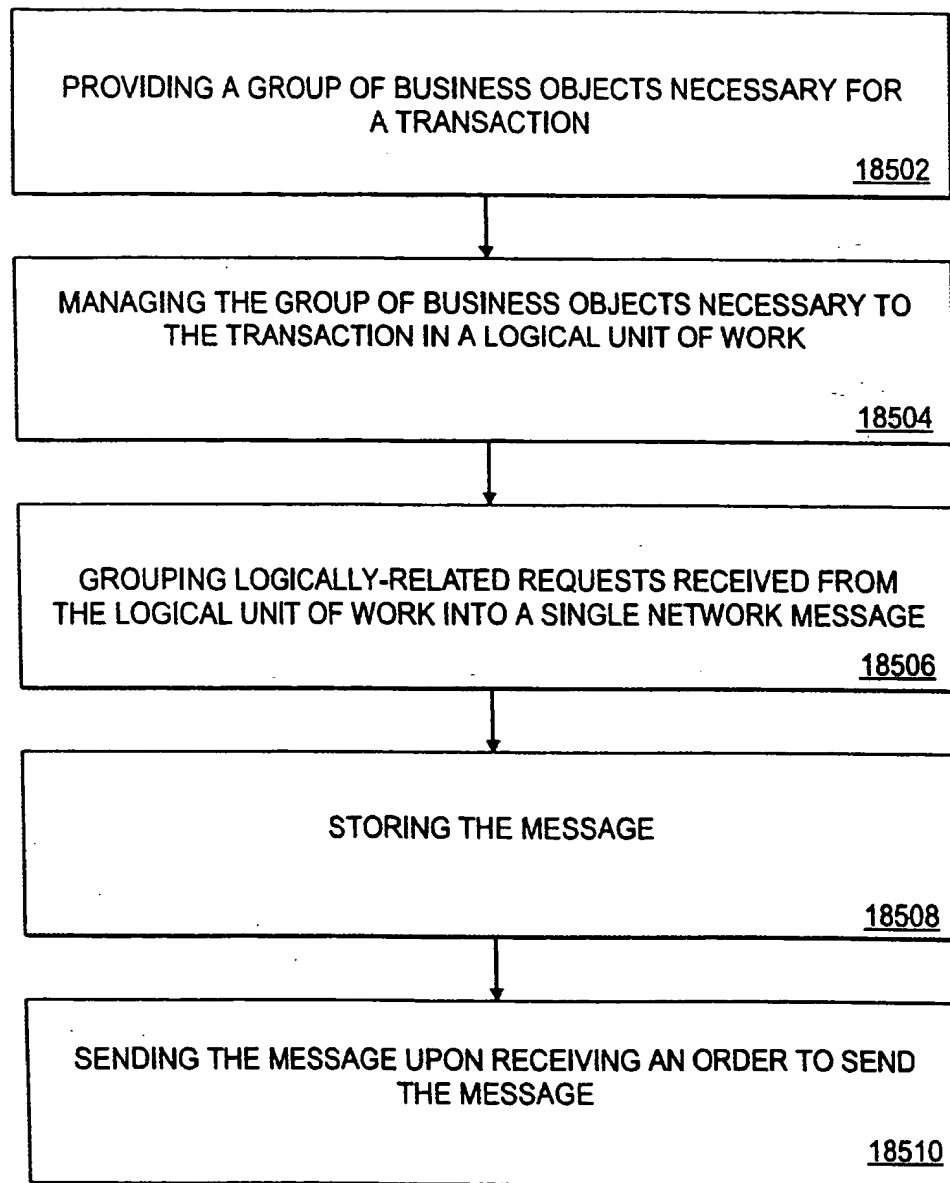


Fig. 185

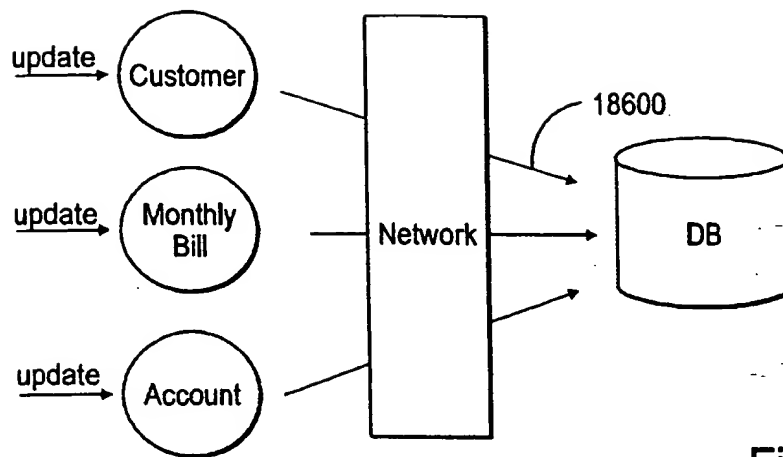


Fig. 186

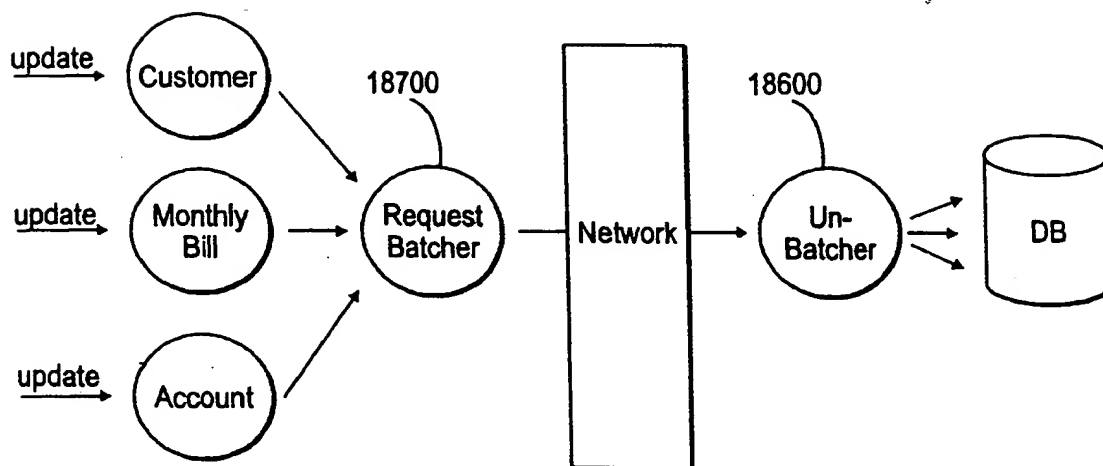
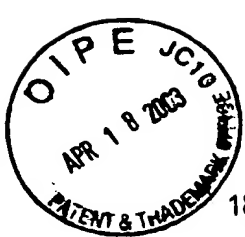


Fig. 187



18800

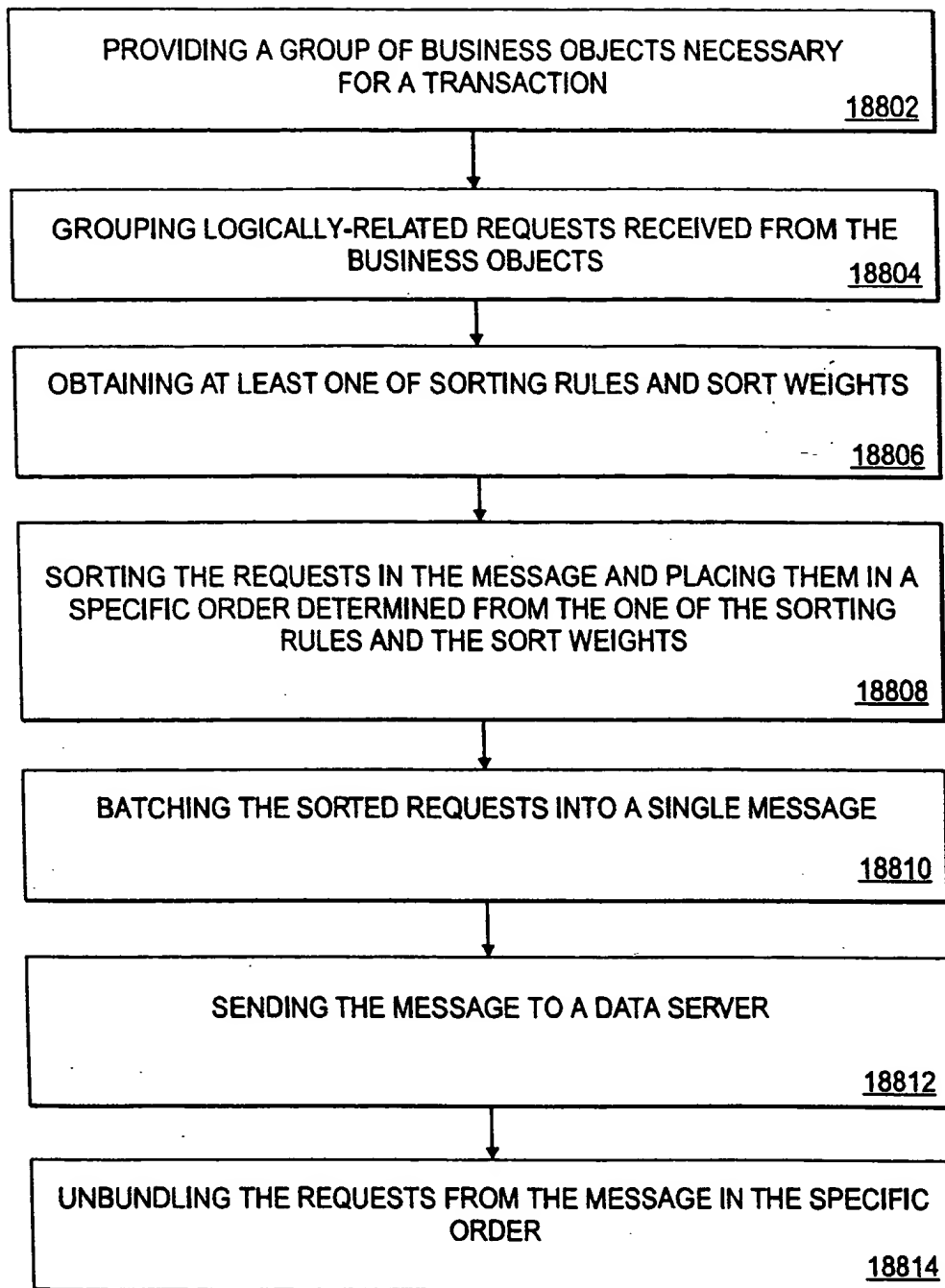


Fig. 188

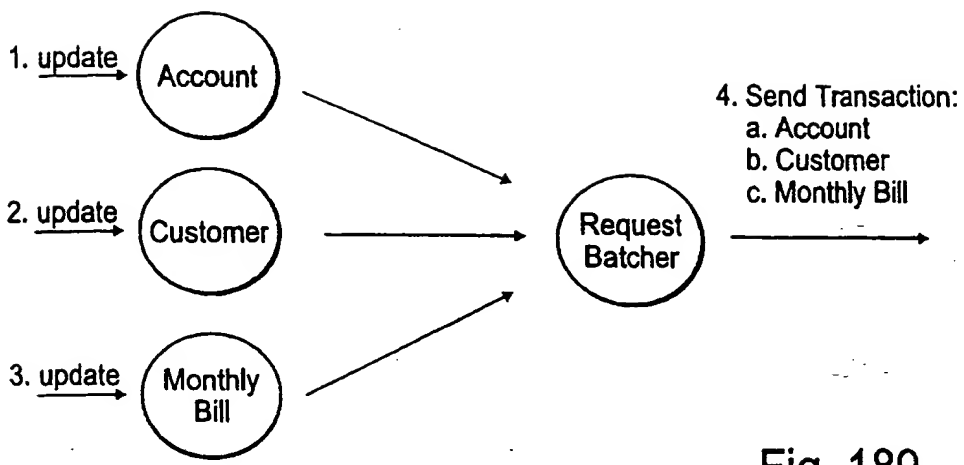
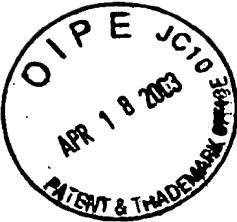


Fig. 189

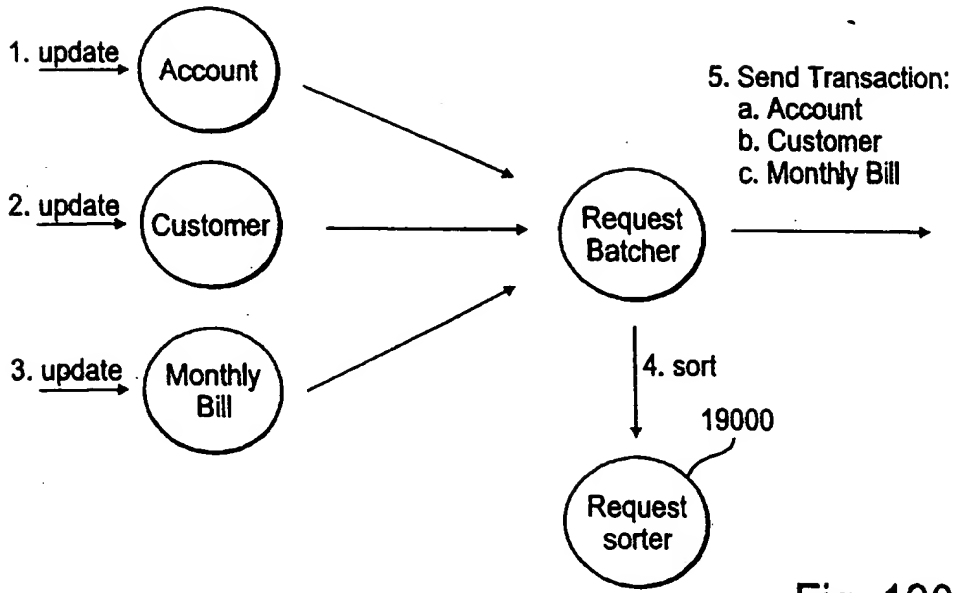


Fig. 190





19100

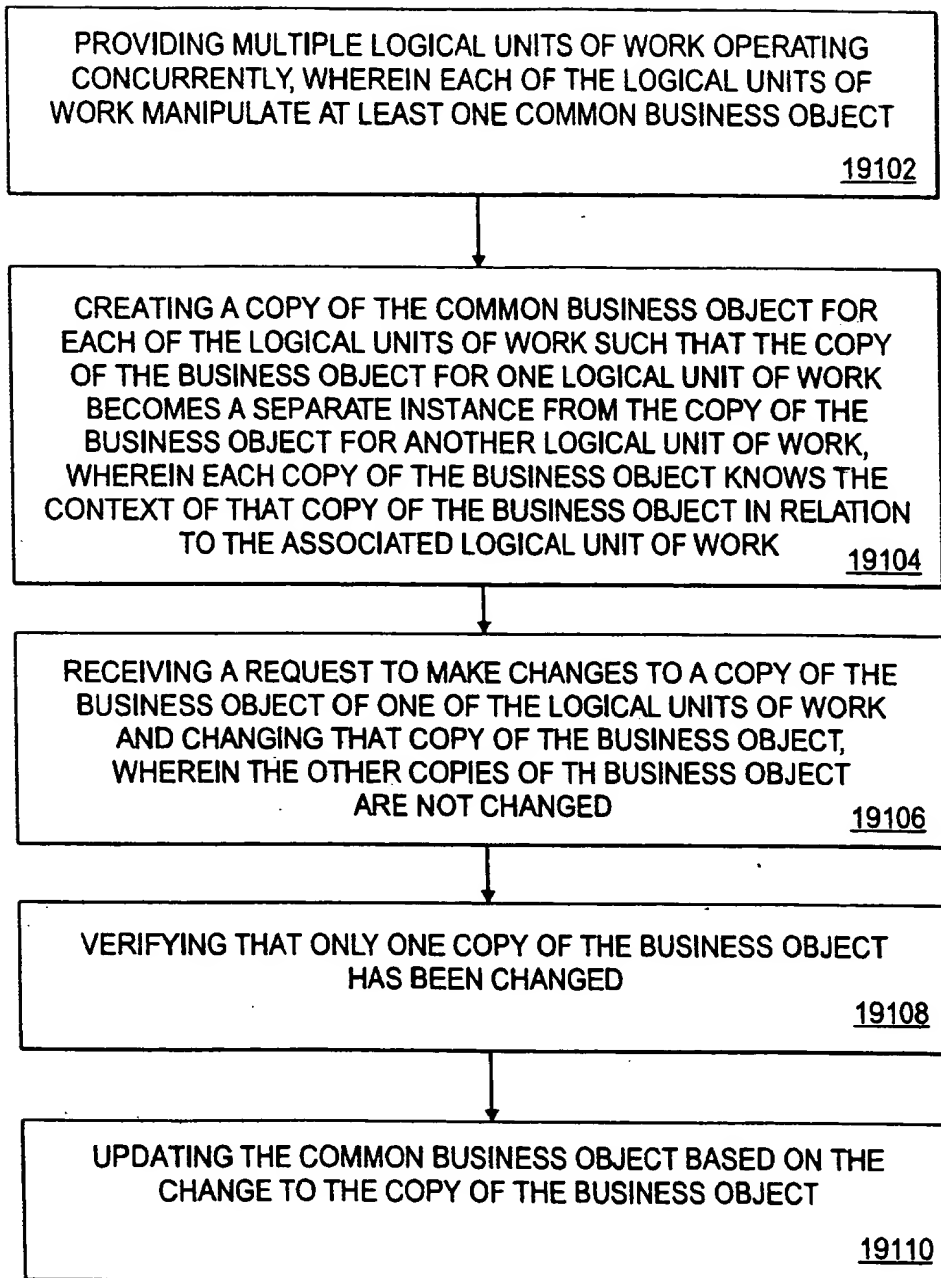


Fig. 191

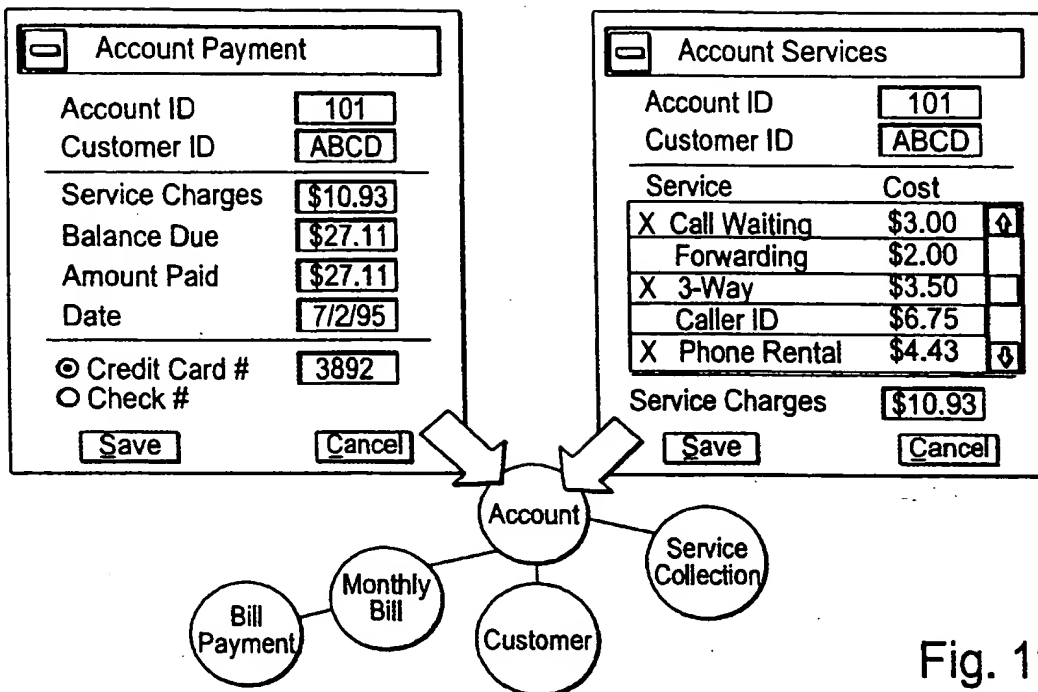


Fig. 192

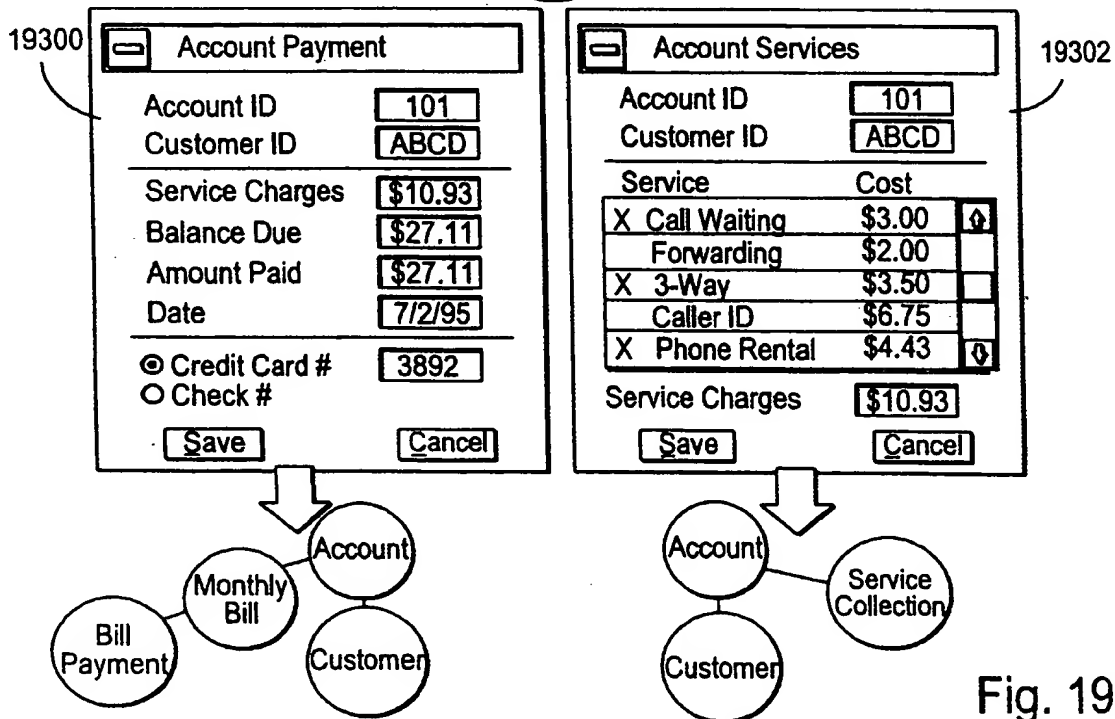


Fig. 193

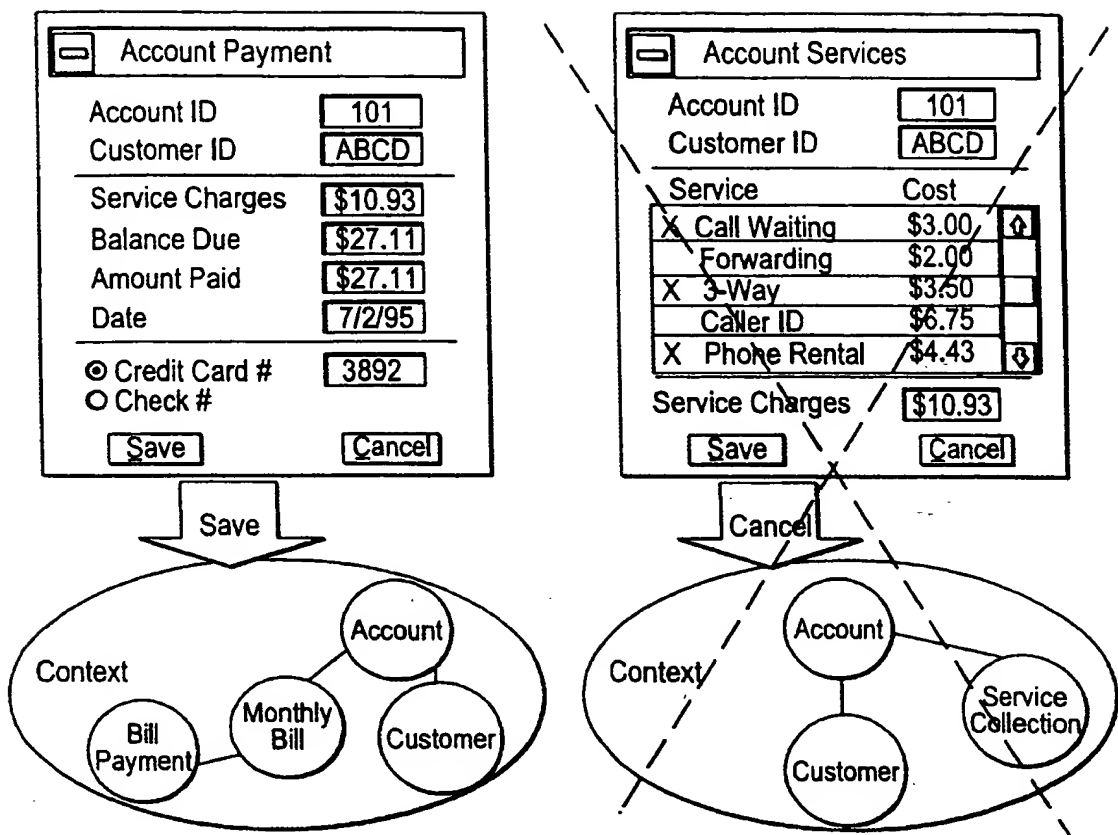


Fig. 194

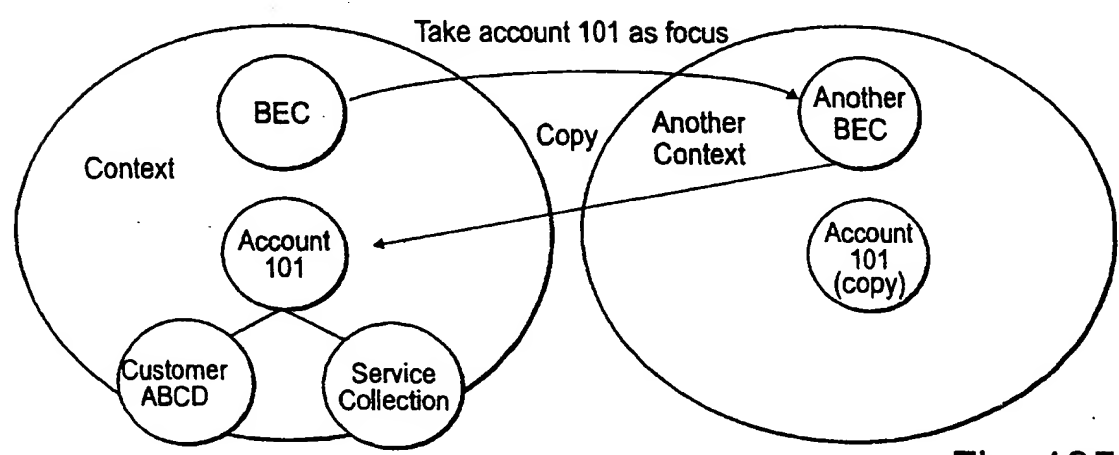


Fig. 195